University of Alberta

"Do as We Say, Not as We Do": A Content Analysis of Recent Popular Magazine Articles on Anorexia Nervosa and Bulimia

by

Rebecca Elisabeth Inch

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Dedication

This thesis is dedicated to Shanna Ellis, Laurie Robertson and Karine Schaffer, three truly beautiful individuals, inside and out.

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CHAPTER I

INTRODUCTION

The incidence of eating disorders has increased by 375% over the last few decades (Lucas, Beard, O'Fallon and Kurland, 1991), making them a rapidly-growing health concern. The overall mortality rate of eating disorder patients is among the highest of any of the psychiatric illnesses (Neumaerker, 2000). Few organ systems are spared the progressive deterioration that marks the clinical course of eating disorders (Garner, 1997; Leonard & Mehler, 2001), and mental health concerns, such as depression and anxiety often arise concurrently with eating and body image disturbances (American Psychiatric Association, 2000 [*DSM-IV-TR*]; Maxmen and Ward, 1995). This further complicates the treatment and recovery process.

Due to their severe and intractable nature, efforts to address eating disorders have recently been shifting from a focus on remediation to prevention, through public education and health promotion (Wade, Davidson & O'Dea, 2002). Ironically, the popular magazines implicated in the etiology of eating disorders through promotion of thin beauty ideals have recently become involved in educating the public about these disorders by publishing articles about individuals suffering from anorexia nervosa and/or bulimia. The purpose of this study is to examine the content of popular magazine articles on eating disorders to assess their accuracy and likely impact on impressionable readers.

In this chapter, the nature and diagnostic criteria of eating disorders will be described, along with their incidence, prevalence and associated physical and psychological problems. A brief overview of existing treatments and the nature of the

recovery process will also be provided, before shifting to a discussion of primary prevention. The information contained in this chapter represents the factual information about eating disorders to which magazine article portrayals will be compared. The literature review chapter that follows will situate the media in the etiology and attempted prevention of eating disorders.

Diagnostic Criteria for Eating Disorders

The Diagnostic and Statistical Manual of Mental Disorders (*DSM-IV-TR*, 2000) identifies eating disorders as psychological disorders that generally originate in childhood or adolescence and often continue into the adult years. Two primary eating disorders are described: anorexia nervosa and bulimia. Anorexia nervosa is characterized by refusal to maintain body weight at or above a minimally normal level for one's age and height, an intense fear of gaining weight or becoming fat even if an individual is underweight, disturbance in perception of body weight or shape, undue influence of body weight or shape on self evaluation, the denial of the seriousness of low body weight and, in females of menstrual age, the absence of at least three consecutive menstrual cycles (*DSM-IV-TR*). The diagnostic criteria for males with anorexia nervosa are similar to those for females, except cessation of menses is not applicable. Instead, men often suffer from lowered levels of reproductive hormones (Anderson, 2002).

Within the *DSM-IV-TR* classification of anorexia nervosa, there are two subtypes. The ***restricting type*** is diagnosed when weight loss is accomplished chiefly through dieting, fasting or over-exercise, without regularly engaging in binge-eating or purging. The ***binge-eating/purging type*** is diagnosed when the individual with

anorexia nervosa regularly goes on eating binges and/or purges calories through vomiting, laxatives, diuretics or enemas.

Bulimia is characterized by recurrent episodes of binge-eating, and recurrent inappropriate compensatory behaviour in order to prevent weight gain (i.e., self-induced vomiting, misuse of laxatives, diuretics, enemas, or other medications, fasting, or excessive exercise). The binge eating and compensatory behaviours must both occur, on average, at least twice a week for 3 months for a diagnosis of bulimia to be made. At the same time, self-evaluation must be unduly influenced by body shape and weight, and the disturbance must not occur exclusively during episodes of anorexia nervosa (*DSM-IV-TR*, 2000). Two subtypes exist within the diagnostic category of bulimia. The *purging type* is diagnosed when the individual uses vomiting, laxatives, diuretics or enemas during the disordered sequence of behaviour. The *nonpurging type* is diagnosed when the individual uses inappropriate compensatory behaviours after bingeing (i.e., fasting, excessive exercise), but refrains from misuse of vomiting, laxatives, diuretics or enemas (*DSM-IV-TR*).

Physically, individuals suffering from anorexia nervosa present differently than those suffering from bulimia. Garner, Olmstead and Polivy (1983) found that in a sample of 113 women with anorexia nervosa, their average overall Body Mass Index (BMI) was 17.5. In contrast, the same researchers found that the average BMI of 195 women with bulimia was 21.3. That is, patients with anorexia nervosa are, by definition, underweight, but a typical individual with bulimia is of normal weight. Also, a significant minority of individuals suffering from bulimia are overweight. Maxmen and Ward (1995) note, "Rarely are bulimics skinny; 5% are overweight"

(p.343). The studies cited here are based on females because eating disorders primarily affect young women (Attie, Brooks-Gunn, & Petersen, 1990).

Incidence and Prevalence of Anorexia Nervosa and Bulimia

The incidence and prevalence of anorexia nervosa and bulimia in the population is a subject of debate. When considering the percentage of the population affected by eating disorders, it is necessary to distinguish between incidence and prevalence. Incidence refers to the number of new cases that appear over a specific period of time, such as a year. Prevalence refers to the number of individuals in a particular population who have the illness at any one point in time. Epidemiological research has tended to focus on prevalence studies, often conducted on high-risk groups, such as adolescent school girls, with fewer studies of incidence (Hoek, 2002). Most of the studies on incidence and prevalence of eating disorders were conducted in Europe or North America.

In 1991, Lucas et al. conducted a study that aimed to identify all individuals with anorexia nervosa residing in Rochester, Minnesota, between the years of 1935 and 1984. The Minnesota study was one of the largest studies on anorexia nervosa to date, encompassing the largest number of decades. This study found the incidence of anorexia nervosa to be relatively high: 14.6 per 100,000 for women. In another study, anorexia nervosa was tracked by general practitioners in the United Kingdom and the Netherlands using strict *DSM-III-R* (American Psychiatric Association, 1987) criteria. The current *DSM-IV-TR* criteria for anorexia nervosa are identical to the previous *DSM-III-R* criteria for the disorder. The figures obtained indicated an incidence of 4.2 per 100,000 population in the United Kingdom and 8.1 per 100,000

population in the Netherlands (Hoek, 2002). Hoek (2002) points out that using stringent sampling methods gives the most accurate prevalence of eating disorders in the population and recommends a two-stage survey process. The first stage involves a questionnaire that attempts to determine the presence of an eating disorder. The second stage involves interviewing those who endorsed having an eating disorder on the questionnaire. The interviewer uses strict diagnostic criteria. A random selection of individuals who did not indicate having an eating disorder on the questionnaire are also interviewed, to confirm that their negative result was accurate and that they do not suffer from an eating disorder. Using this procedure, Hoek (2002) determined that the average prevalence of anorexia nervosa is 0.28% in young girls.

The incidence of bulimia is generally agreed to be higher than that of anorexia nervosa. When medical records were screened for bulimia in Minnesota, researchers found an incidence of 15.5 per 100,000 population per year, between 1980 and 1990 (Hoek, 2002). The incidence of bulimia in the United Kingdom is around 12 per 100,000 (Turnbull & Ward, 1996). Using a stringent two-stage survey method, it was determined that bulimia has a 1% rate of prevalence in young girls (Hoek, 2002). If we compare the prevalence of the two disorders using Hoek's 2002 findings, we can calculate that bulimia is 3.6 times more prevalent than anorexia nervosa among young girls.

There is evidence to suggest that the rate of eating disorders in North America has increased substantially over the last half of the twentieth century (Leichner & Gertler, 1988). Among women aged 10 to 19, the incidence of anorexia nervosa increased by 375% between the periods of 1950-1954 and 1980-1984 (Lucas et al.,

1991). This increase is not believed to be due exclusively to better detection by physicians, because the researchers in the study retroactively screened medical records in order to identify true cases of anorexia nervosa using standard diagnostic criteria retroactively. Individuals diagnosed with amenorrhea, starvation, weight loss, or other conditions were included in the study if they met all the necessary criteria, even if their physician did not report anorexia nervosa at the time. The increased rates of eating disorders are possibly due to recent increases in the availability of inexpensive, high-caloric foods, combined with a shift in beauty ideals from a voluptuous body type (i.e., Marilyn Monroe) to the thin beauty ideal (i.e., Kate Moss). This hypothesis is supported by studies showing that eating disorders are most prevalent in conditions/countries where food is plentiful, and where a thin appearance is valued (Griffin & Berry, 2003).

Gender and Eating Disorders

Anorexia nervosa is most frequently found in adolescent girls and young women, and less frequently in pre-pubertal children and middle-aged women (Beument, 2002). Bulimia is generally acknowledged to have a later age of onset, and to occur almost exclusively in female adolescents or adults (Kent, Lacey, & McCluskey, 1992), very rarely occurring in children.

Community-based epidemiological studies of eating disorders indicate that, of the individuals suffering from eating disorders, 16% are men (Anderson, 2002). Out of 100,000 men in Minnesota during a 50-year period, 1.8 were classified as suffering from anorexia nervosa (Lucas et al, 1991). Clearly this is significantly less than the 14.6 out of 100,000 women suffering from anorexia nervosa found in the same study.

Hoek and van Hoeken (2003) conducted a review of the literature on the incidence and prevalence of eating disorders. They found that the prevalence rate of bulimia is 0.7% for young men. There is evidence suggesting that rates of eating disorders are rising among men as well (Braun, Sunday, Huang, & Halmi, 1999). Rates of male eating disorders may be increasing due to increased media emphasis on the muscular male ideal body type (Leit, Pope, & Gray, 2001). Despite the increase, rates of eating disorders among men are still relatively low.

Physical and Psychological Consequences of Eating Disorders

Leonard & Mehler (2001) note that few organ systems are spared the progressive deterioration that marks the clinical course of anorexia nervosa: the disorder is associated with complications such as osteoporosis, cardiovascular problems, endocrine imbalances, amenorrhea (loss of menses), fertility problems, and gastrointestinal difficulties. Brain mass decreases in 50% of patients, and the loss may be permanent (Maxmen & Ward, 1995). Bulimia has been linked to problems such as metabolic and endocrine changes, fluid and electrolyte abnormalities, dental complications, serious gastrointestinal complications, cardiovascular problems, and neurological complications (Mitchell, Specker, & de Zwaan, 1991).

As mentioned previously, the overall death rate of eating disorder patients is among the highest of any of the psychiatric illnesses (Neumaerker, 2000). The reported mortality rate of eating disorder patients varies from study to study, and is affected by the length of follow-up, with longer follow-up periods generally associated with higher rates of mortality (Sullivan, 2002). Studies of mortality in anorexia nervosa cases have varied in length from 1 to 30 year follow-up (Crow,

Praus & Thuras, 1999). Another factor that can account for differing mortality rates concerns the sample of eating disordered individuals in the study. Studies that include only hospitalized eating disorder patients tend to have higher mortality rates than studies that include patients who meet the DSM criteria for an eating disorder, but who do not necessarily require hospitalization.

Taking these issues into account, the mortality rate of anorexia nervosa is somewhere between 6% (Sullivan, 2002) and 20% (Neumaerker, 2000). The main causes of death are complications of malnutrition, cachexia (death from emaciation) and suicide (Neumaerker, 2000). Regardless of the actual percentage of cases which end in death, we can say with certainty that the chance of death in an individual with anorexia nervosa is "grossly elevated in comparison to individuals without anorexia nervosa" (Sullivan, 2002, p. 228).

There are fewer long-term studies of mortality rates associated with bulimia, in part due to the fact that practitioners have only recently recognized the condition. However, most research indicates the mortality risk of bulimia is present, but lower than that of anorexia nervosa (Sullivan, 2002). A review of 60 outcome studies on bulimia reported a crude mortality rate of 0.3% (Keel & Mitchell, 1997). Crow, Praus, and Thuras (1999) found a higher crude mortality rate of 2.4%. The main cause of death in individuals with bulimia is electrolyte imbalance, causing cardiac complications and sudden death (Garner, 1997). Ipecac, a drug used to induce vomiting, is associated with cardiotoxicity leading to sudden death in bulimic patients (Garner, 1997). Bulimic individuals can also die due to severe gastric complications, such as a ruptured stomach or esophagus (Mitchell et al., 1991).

In addition to the serious physical consequences of eating disorders, many individuals with anorexia nervosa suffer from symptoms of depression, including low mood, social withdrawal, sleep difficulties, insomnia and low sex drive (*DSM-IV-TR*, 2000). The individual may also be obsessed with thoughts of food, and may begin hoarding recipes or food (*DSM-IV-TR*). Individuals with bulimia frequently have impulse control problems and may steal, self-mutilate or attempt suicide (Maxmen & Ward, 1995). One third also abuse alcohol or drugs (Maxmen & Ward, 1995). It is sometimes difficult to determine whether mental health problems precede the development of eating disorders, or whether the physical changes associated with these disorders precipitate mental health concerns (*DSM-IV-TR*).

Treatment

Anorexia Nervosa

Few randomized, controlled studies have been conducted on the treatment of anorexia nervosa (Neiderman, 2000). Common forms of treatment include hospitalization, partial hospitalization (day programs), nutritional counselling, cognitive behavioural therapy, and family therapy. The use of antidepressants and other drugs has not proved effective for these patients (Herzog, Keller, Strober, Yeh, & Pai, 1992).

Hospitalization for individuals with anorexia nervosa is frequently necessary, in order to restore healthy mental, physical and social functioning (Andersen, Bowers, & Evans, 1997). The goals of hospitalization include restoration of a healthy body weight, development of normal eating behaviour, treatment of comorbid psychiatric disorders, establishing appropriate exercise behaviour, resolution of distorted

cognitions regarding body weight, resolution of medical complications, and establishing aftercare plans (Andersen et al., 1997). Hospitalization is most effective when patients are given time to restore body weight to at least 90% of a healthy body weight and maintain this weight for a minimum of two weeks; this takes, on average, 12 to 15 weeks (Andersen et. al, 1997). Aftercare follow-up is essential in cases of hospitalization. Andersen et al. (1997) comments "Eating disorders severe enough to require inpatient treatment will require experienced long-term follow-up, usually from 1 year to several years" (p. 345).

Partial hospitalization or day programs are considered a cost-effective alternative to full hospitalization for some patients (Piran, 1990). In this treatment setting, patients have access to various interventions, including the extensive use of group therapy, which has been found to be effective and economical for anorexia nervosa patients (Hall, 1985). The patients attend the program five days a week and return home for evenings and weekends. The average length of day treatment is between 10 and 11 weeks (Kaplan & Olmsted, 1997).

Nutritional counselling has the goal of helping patients attain and maintain normal nutritional status, to assist patients in establishing normal eating behaviours, to promote a normal attitude towards food and to help patients develop appropriate responses to hunger and satiety cues (Beumont, Beumont, Touyz, & Williams, 1997). Sessions with a dietitian or nutritionist are most effective when they are available to the patient long-term. Beumont et al. (1997) comments "...anorexia nervosa often persists for some years, and just as continued psychotherapy is required, so is persistent diet therapy necessary for long-term rehabilitation" (p. 182).

Cognitive behaviour therapy (CBT) for anorexia nervosa emphasizes changing beliefs related to food and weight primarily through psychotherapy, although sometimes in conjunction with more intense intervention such as hospitalization (Garner, Vitousek & Pike, 1997). Techniques include giving a rationale and advice for restoring normal nutrition and body weight, and implementing meal planning. Therapy also addresses fear of losing control, fear of shape change, beliefs about food, analyzing the pros and cons of maintaining the disorder, challenging cultural values regarding weight and shape, identifying dysfunctional patterns of thinking, and reframing relapses. (Garner et al., 1997). CBT for anorexia nervosa typically lasts from one to two years (Garner et al., 1997).

A new form of manualized family therapy for adolescents (known as the Maudsley family treatment) encourages parents to take charge of refeeding their child with anorexia nervosa (Krautter & Lock, 2004). After the refeeding phase, the adolescents are encouraged to take charge of their own nutrition. The final phase of treatment aims at improving general adolescent concerns and issues which have been affected by anorexia nervosa.

Bulimia

Hospitalization and partial hospitalization is sometimes advocated for individuals with severe bulimia (Andersen et al., 1997; Piran, 1990). These hospitalizations focus on interrupting the binge-purge cycle, encouraging normal eating and stabilizing medical values (Woodside, 2002).

CBT is a well-researched, effective treatment for bulimia, resulting in significant reductions in purging and binge eating, and fewer difficulties with body

image (Pike, Loeb, & Vitousek, 1996). Treatment involves encouraging self-monitoring, reducing frequent weighing, educating the patient about weight/eating, prescription of regular eating patterns, self-control strategies, eliminating dieting, teaching problem-solving skills, and cognitive restructuring (Garner, Vitousek, & Pike, 1997). The course of CBT for individuals with bulimia is shorter than for those with anorexia; clinicians recommend 19 sessions over 20 weeks (Fairburn, 1985). Psychopharmacological interventions are also useful in treating bulimia and may be especially effective when used in combination with CBT (Pike et al., 1996).

Motivational enhancement therapy is an emerging therapy for individuals with eating disorders (both anorexia nervosa and bulimia) who are resistant to treatment (Kotler, Boudreau, & Devlin, 2003). This treatment is based on the established motivational principles for treating individuals with addictions, and has been adapted to promote change in individuals with anorexia nervosa and bulimia.

Primary Prevention

Due to the difficulty in treating eating disorders, the importance of prevention and early intervention has become increasingly recognized (Piran, 2002). Primary prevention is aimed at healthy individuals, and has the goal of preventing new cases of eating disorders from arising. Preventative efforts have taken various forms, including formal prevention programs spearheaded by mental health professionals, and informal efforts by journalists and media writers in popular magazines to educate the public about eating disorders.

Unfortunately, some programs designed to directly address eating disorder behaviours have been found to be highly ineffective. Mann, Nolen-Hocksema,

Huang, Burgard, Wright, and Hanson (1997) evaluated the results of an eating disorder prevention program presented to college freshmen and found that students who attended the program reported more symptoms of eating disorders than did the students in the control group, though there were no significant differences between the groups before the implementation of the program. Rather than preventing eating disordered behaviour, the program actually increased the chances of the participants exhibiting symptomatology. Mann et al. (1997) argued that this ineffectiveness may have been at least partially due to the fact that the presentation unintentionally gave harmful suggestions of eating disordered behaviours which could be copied by students.

Stice and Shaw (2004) differentiate between the first, second and third generation of eating disorder prevention programs. First generation programs delivered didactic psychoeducational material about eating disorders in interventions aimed at all available adolescents, assuming that information about adverse effects of eating disorders would serve as a deterrent. The researchers indicate that second generation prevention programs also had a universal focus and remained didactic, but included components that addressed resisting sociocultural pressures for thinness. Finally, the third generation of interventions includes selective programs that are aimed at high-risk individuals, with interactive exercises.

A meta-analysis of interventions aimed at preventing eating disorders (Stice & Shaw, 2004) indicated that programs which were provided selectively to high-risk individuals produced significantly larger intervention effects than did universal programs. Interactive programs showed stronger intervention effects than didactic

programs (Stice & Shaw, 2004). Other findings indicated that participants over the age of 15 benefited more than younger participants, multi-session approaches were more successful than single session approaches, and programs with psychoeducational content were less successful than programs without this content (Stice & Shaw, 2004).

Eating disorders may be better addressed indirectly, by focusing on more general psychological health, such as self-esteem. Raising self-esteem in adolescents is of critical importance in preventing eating disorders. This is demonstrated by research indicating that low self-esteem is a powerful predictor of later eating disorders (Wade & Lowes, 2002). It has also been demonstrated that programs which focus on building self-esteem without any discussion of eating or weight issues have been shown to decrease both body dissatisfaction and dieting in girls (O'Dea & Abraham, 2000). Other helpful methods of eating disorder prevention target body dissatisfaction. Longitudinal research (Ohring, Graber & Brooks-Gunn, 2002) indicates that girls with recurrent body dissatisfaction during adolescence are more likely than other girls to have a serious eating problem in young adulthood. Finally, stress-management skills, healthy weight-control behaviours and critical analysis of the thin ideal (media literacy) are also promising methods of preventing eating pathology (Stice & Shaw, 2004; Wade et al., 2003).

Informal efforts by the popular media (books, films, television specials, popular magazine articles) to educate individuals about eating disorders have not been evaluated empirically. Preliminary evidence (Schulze & Gray, 1990) has indicated that popular magazine descriptions of bulimia cause readers to view the condition as

significantly more attractive and glamorous than do textbook descriptions. If magazine articles present eating disorders in a favourable light or inadvertently provide readers with ideas about how to successfully achieve weight loss, they may have an adverse impact on readers similar to that observed for eating disorder prevention programs that focus on disordered behaviours.

Purpose of the Study

This study aims to examine the information presented in popular magazine articles about eating disorders, including the demographic characteristics of the individuals profiled and the information presented about their weights, eating habits, exercise patterns, and other methods of weight control. The information presented about the physical and psychological consequences of eating disorders and the nature of the treatment and recovery process will also be examined. The study will investigate whether the articles focus more heavily on disordered behaviours than the associated health risks, and whether they selectively profile eating disorder patients who conform to the thin beauty ideal. The study will assist the researcher in putting forth recommendations for maximizing the effectiveness of magazine-based education regarding eating disorders and for minimizing adverse impacts on readers.

Overview of Thesis

In Chapter II, the Literature Review, the role of the popular media (beauty magazines) in the development of eating disorders will be discussed, highlighting their potential to promote self-objectification among readers. The emphasis on the thin beauty ideal is described. It will be argued that the attempts of beauty magazines to educate the public on eating disorders may reinforce the desirability of thinness,

and have the unintended effect of teaching readers specific, harmful methods of weight control. These readers will be argued to already be highly motivated to achieve the thin ideal, and are therefore vulnerable to any information that promises weight loss. Differences between magazine and textbook descriptions of eating disorders will be further discussed, with the intention of highlighting discrepancies in the nature of the information presented, and its effects on impressionable readers. This chapter concludes with the hypotheses of the study.

In Chapter III, Method, the criteria for including magazine articles in the study, as well as the specific information about eating disorders tracked within them, is described. In Chapter IV, Results, the nature of magazine article portrayals of eating disorder sufferers, disordered behaviours, and physical and psychological consequences will be presented. The study hypotheses will also be evaluated. In the final chapter, Discussion, a comparison is made between popular magazine portrayals of eating disorders and current research on eating disorders. Recommendations are made, including suggestions for the media as to how to responsibly cover eating disorders, without encouraging imitation.

CHAPTER II

LITERATURE REVIEW

This chapter provides a discussion of the etiology of eating disorders, specifically focusing on self-objectification and body dissatisfaction as promoted by the North American media. Fashion and beauty magazines are implicated in causing body dissatisfaction and eating disorder symptomatology among young women. The history and nature of popular magazine articles on eating disorders are discussed. Promotion of eating disorders by popular magazine articles is argued to occur through encouraging imitation, and through the normalization and glamorization of eating disorders by fashion/beauty magazines, which serves to trigger some readers and encourage experimentation with eating disorder symptoms. Popular magazines are argued to send a confusing message to young women by idealizing thin bodies, but also cautioning them against developing an eating disorder. Finally, this chapter reveals the study's hypotheses and places the study within the current literature on eating disorders.

Etiology of Eating Disorders

Garner and Garfinkel (1997) report that many factors (biological, familial, cultural) contribute to the development of eating disorders in different individuals. However, the predisposing factors towards eating disorders mainly lead to the conditions in "industrial societies, in which there is an abundance of food and in which, especially for females, being considered attractive is linked to being thin" (*DSM-IV-TR*, 2000, p. 587).

Striegel-Moore and Cachelin (1999) developed a schematic model that represents the risk factors for eating disorders as understood by current researchers. This model includes numerous risk factors that may lead to the development of an eating disorder. Family Context links eating disorders to factors such as inadequate parenting, parental psychopathology, and physical/sexual abuse. Personal Attributes represent the link between eating disorders and personality factors such as difficult temperaments, social ineptness and avoidance. Family Attributes that serve as risk factors for eating disorders are parental obesity and parental weight concern. Constitutional Vulnerability factors are obesity, early onset of menarche (for girls) and perfectionism. Self-Esteem factors implicated in the development of eating disorders are low self-esteem, diffuse identity and social self concerns. Body Image Concerns in the model are adherence to the thin beauty ideal, a belief about the importance of weight/shape, beliefs about attractiveness and body image dissatisfaction.

These various factors are affected by the Cultural and Social Context, in which there is a thin ideal, linking beauty to success and femininity. These conditions, alone or in various combination, may lead to Eating Pathology (dieting, purging, excessive exercise) which may eventually develop into anorexia nervosa or bulimia. Factors such as Family Context, Personal Attributes, Self Image, Family Attributes and Constitutional Vulnerability are unlikely to lead to eating disorders in cultures which do not emphasize the thin ideal (Striegel-Moore & Cachelin).

Media Role in the Development of Eating Disorders

Although eating disorders have a variety of causes, the North American media has been postulated to play a key role in the development of anorexia nervosa and bulimia in some women. This culpability of the media is grounded in the sociocultural model of eating-disorder development. This model postulates that the popular media leads young women to believe that extreme thinness is both desirable and achievable through diet and exercise (Thomsen, McCoy, Gustafson, & Willimas, 2002), which leads to the development of an eating disorder in some individuals with other predisposing vulnerabilities to the conditions.

The valued body type in North America is thin, and is getting thinner. Many researchers have noted the media's trend towards utilizing increasingly underweight models and actresses. For example, Garner, Garfinkel, Schwartz, and Thopson (1980) report a significant decrease in weights and body measurements (hips, waist and bust) of *Playboy* centerfolds and Miss America Pageant contestants between the years 1959 and 1978. Wiseman, Gray, Mosimann and Ahrens (1990) indicated that the trend of displaying unusually thin models continued and intensified between 1979 to 1988, and noted that 69% of the Playboy models and 60% of the pageant contestants in the study met the weight criteria for a diagnosis of anorexia nervosa (i.e., weight 85% or less than expected for height). A 1999 content analysis by Boyd and Fouts (as cited in Vaughan & Fouts, 2003) analysed a 1-year sample of 18 magazines read by adolescent girls (i.e., *Cosmopolitan*, *Teen*). The researchers found that the vast majority of the female models (87%) were below average in weight.

The Western media is considered to be particularly responsible for eating disorders, with Griffin and Berry (2003) commenting, "Anorexia nervosa is nearly non-existent in non-Westernized countries and has been characterized as *the* culture-bound syndrome of the West" (p. 43). Dissatisfaction with one's body as a result of exposure to "Western" or North American media is illustrated by a study of adolescents in Fiji conducted by Becker (1999). Becker found that prior to the introduction of television into Fijian society, eating disorders were rare and most adolescent girls were relatively satisfied with their bodies. However, when Fijian girls were exposed to images of idealized North American body sizes (through the introduction of television into Fijian society) body dissatisfaction increased, and dieting became a more common practice.

Becker's work demonstrates a direct link between exposure to North American media and body dissatisfaction. Although Becker's study implicated television in the development of body dissatisfaction among young women, current studies of various forms of North American media have indicated that fashion and beauty magazines have a stronger negative effect than television on the body image of adolescent girls and young women.

Beauty and fashion magazines are popular publications that emphasize clothing and appearance. These magazines are read by the substantial majority of university aged females (Morry & Staska, 2001) and tend to focus largely on fashion and physical beautification (Evans, Rutberg, Sather, & Turner, 1991). Morry & Staska (2001) identified examples of beauty magazines as being *YM* (Young & Modern), *Mademoiselle*, *Vogue*, *Cosmopolitan*, *Seventeen*, *Glamour*, *Elle*, *Vanity*

Fair, and *Self*. Evans et al. (1991) conducted an analysis of *Sassy*, *Seventeen* and *Young Miss* (*YM*) over a one year period. The authors found that the magazines focus on self-improvement through fashion and physical beautification, and noted that the magazines reflected, "an underlying value that the road to happiness is attracting males for successful heterosexual life by way of physical beautification" (p. 110).

Tiggemann (2003) compared the amount of magazine reading and television watching with internalization of thin ideals, and found that only the amount of magazine reading was correlated with internalization of thin ideals by participants. Harrison and Cantor (1997) found that consumption of thinness-depicting and thinness-promoting media significantly predicted women's eating disorder symptoms, and men's attitudes in favour of their own thinness and dieting. The findings were more consistent for overall fitness and fashion magazine reading than for overall television viewing, although both types of media were consistent predictors of the eating disorder symptomatology. The negative effect of reading popular magazine is especially relevant, in light of the fact that young women increase their reading of fashion and beauty magazines as they enter adolescence (Larson, Kubey, & Colletti, 1989).

Media images of the ideal of female beauty have an immediate effect on women's mood states (Pinhas, Toner, Ali, Garfinkel, & Stuckless, 1999). When female students were shown slides containing full body images of women models taken from six common fashion magazines, they showed significantly higher levels of anger, hostility and depressed mood than did control participants. The results also

indicate that women who are more dissatisfied with their bodies are more vulnerable to the negative effects of the images than are others (Pinhas et al.).

Many researchers have examined the effect of the general mass media on women's body image and have noted a link between general exposure to beauty magazines and eating disordered behaviour. For example, Thomsen, Weber and Brown (2002) found that the reading of women's beauty and fashion magazines influences some of the most common pathogenic dieting measures used by adolescents. Specifically, their results indicate that behaviours such as severely restricting calories, using appetite suppressants or weight control pills, intentional vomiting, skipping meals and laxative use are closely associated with the tendency to frequently read beauty and fashion magazines. Similarly, Harrison (2000) found that exposure to thin-ideal magazines predicted eating-disorder symptomatology for female adolescents. A longitudinal study by Vaughan and Fouts (2003) followed 374 adolescent girls over 16 months, and assessed the relationship between their media exposure and their development of eating disorder symptomatology. Girls with increased symptomatology of eating disorders had significantly increased their exposure to fashion magazines.

Some research has implicated health and fitness magazines, in addition to beauty and fashion publications. Botta (2003) surveyed 400 high school and college students and discovered that reading health/fitness magazines was a significant predictor of body image and eating disturbances for adolescents. Girls who read health/fitness magazines showed a stronger drive to be thin, and increased anorexic and bulimic intentions and behaviours (i.e., fasting, vomiting). Boys who read these

magazines were more likely to take pills and supplements in order to gain muscle, and indicated a greater intention to become muscular. It may be that the number of thin models presented in health magazines makes them very similar to the fashion/beauty magazines that have such negative effects on young individuals. However, the information about maintaining physical health in these magazines may serve to counter the impact of beauty images if readers attend to this information.

Internalization, Self-Objectification and Circular Media Use

Internalization of Thin Ideal

The reason for this link between exposure to beauty magazines and disordered eating may be due to the fact that many young women internalize and embrace the "thin ideal" portrayed in these magazines, and become motivated to attain this ideal (Thomsen et al., 2002). Low, Charanasomboon, Brown, Hiltunen, Long and Reinhalter (2003) conducted a study of seventy nondisordered undergraduates and found that those who internalized the thin ideal had more body image and weight concerns than those who did not. Low et al. also found that maturity fears are correlated with internalization of the thin ideal in their sample, leading the researchers to speculate that media exposure may be associated with anxiety about maturation. This may be due to the fact that as women mature, their body's percentage of fat tends to increase, moving them away from the ideal Western body type. Women who value thinness may find the weight gain associated with puberty to be especially difficult. As well, evidence indicates that the relationship between exposure to beauty magazines and eating disorders is affected by the phenomenon of self-objectification (Morry & Staska, 2001).

Self-Objectification

Self-objectification refers to the tendency for individuals to view their body as an outside observer, to feel shame when the body does not conform to standards, and to hold the belief that appearance is under a high degree of personal control (McKinley & Hyde, 1996). Objectification Theory suggests that, "when objectified, women are *treated as bodies* – and in particular, as bodies that exist for the use and pleasure of others" (Fredrickson & Roberts, 1997, p. 175). Fredrickson and Roberts argue that the most profound effect of objectification occurs when girls and women are socialized to view themselves as objects, and to adopt an observer's perspective on their physical selves. This outsider's view leads individuals to become preoccupied with their own physical appearance. In this state, women see their bodies as objects that can be refined and improved. Fredrickson and Roberts (1997) note that eating disorders have become a risk to the health of girls and women in the North American culture where objectification of the female body occurs.

Research supports the linking of self-objectification and disordered eating. For example, a study by Muehlenkamp and Saris-Baglama (2002) indicated that self-objectification has a direct relationship to restrictive eating and bulimic symptoms amongst college age women. Slater and Tiggemann (2002) found that self-objectification is linked to self-monitoring, body shame and disordered eating among adolescent girls, implying that self-objectification affects adolescents in a similar manner to which it affects adult women.

Interactive Circular Model of Media Use in Anorexia Nervosa

In a 2001 study, Thomsen, McCoy, and Williams found that anorexic women use fashion magazine articles for specific functions that are related to their diagnosis of anorexia nervosa. Specifically, they found the women with anorexia distorted magazine messages in order to reduce cognitive dissonance about having an eating disorder. That is, the magazines' extreme valuing of thinness served to justify the women's extreme dieting behaviours. Magazines were used to counter concerned messages from family and friends. Women reported reading magazines in order to confirm for themselves that they were doing the right thing by heavily dieting (Thomsen et al.). They also reported using media ideals to strengthen their resolve to restrict their eating.

Williams, Thomsen and McCoy (2003) propose an interactive, circular model of media use in eating disordered patients. This model is similar to those used to explain compulsive and addictive processes. In their 2003 study, Williams et al. interviewed 28 female outpatients receiving treatment for anorexia nervosa. Analysis revealed a circular relationship between anorexia and media use, with heavy psychological dependence on the media occurring after the onset of the anorexia nervosa. The authors comment, "Their use of the media was often directed at learning new ways to perpetuate the disorder" (p. 129). When media instruction and controlled eating failed to provide solutions to the women's initial feelings of pain, they became trapped in a circular process. In this process, pre-existing problems and vulnerabilities led to the women viewing weight control as a solution to problems. When weight control methods fail, painful thoughts/emotions surface which leads to

an increased reliance on the media to solve problems or instruct in solution to these problems. This gives the women an "illusion of control" (p. 130) and/or a distraction from their problems. Failure of weight control and manipulation of diet to realistically solve problems leads to shame, distress and guilt, which leads to further desire to control weight, and further reliance on beauty magazines (Williams et al.).

Exposure to Magazine Articles Describing Eating Disorders

Articles on eating disorders are a fairly common occurrence in popular magazines, and have been since the late 1970s (Schulze & Gray, 1990). Articles may focus on a celebrity or non-celebrity who has suffered from an eating disorder. These stories generally depict the individual's descent into illness, often describing such aspects as foods eaten (including description of portion sizes), amount and type of exercise engaged in and method of purging behaviour used (i.e., vomiting, laxatives). These articles also frequently mention individuals' weight at various stages of their illness. As with most magazine articles, appropriate visual images and photographs are utilized.

For young women, it may be that exposure to media presentations of anorexia and/or bulimia affect the relationship between self-objectification and the development of an eating disorder. Preliminary research (Habermas, 1992) indicates that the popular media impacts individuals' perceptions and conceptualization of eating disorders. That is, the portrayal of eating disorders in the popular media affects young women's understanding of these conditions. Hardin (2003) notes individuals who create and visit pro-anorexia websites acknowledge that some of them "want to become anorexic" (p. 212) leading Hardin to urge researchers to

consider "how anorexia has been constructed and represented as something that young women would want to achieve" (p. 212).

Schulze and Gray (1990) exposed female college students to either a textbook or popular magazine description of bulimia. Those exposed to the magazine presentations viewed individuals with bulimia as more attractive, intelligent, well-adjusted, successful, friendly and in-control, and viewed bulimia as more glamorous than did those who were exposed to textbook descriptions of bulimia. This raises the question: why would exposure to a popular magazine article on bulimia cause a reader to view the disorder in such a positive light, compared to a textbook description? Furthermore, could the content and information presented in popular magazine articles on eating disorders be likely to encourage the development of anorexia nervosa or bulimia?

A study by Edwards-Hewitt and Gray (1993) found that in a sample of 379 female students, the number of articles read about eating disorders was significantly related to bulimic behaviours and attitudes, as well as to subclinical levels of eating disorder symptoms. The authors comment: "...there should be some questioning of how eating disorders are portrayed in the print media" (p. 52). It was impossible to tell from the study whether reading about eating disorders in magazines increased the likelihood of developing symptoms, or whether individuals who already have existing eating disorders simply seek out articles on their condition.

There are several reasons why exposure to popular magazine articles on eating disorders may increase the likelihood of exhibiting eating disordered symptoms, including imitation, normalization, and glamorization. Some readers may also view

the articles as containing the secrets of effective weight loss. These effects may serve to trigger readers who have the tendencies towards eating disorders. Finally, women may be confused about the intention of a cautionary article about eating disorders, when it is placed in the context of a beauty/fashion magazine that emphasizes thinness.

Imitation

Bandura and Walters (1963) discovered that individuals have a strong tendency to imitate novel ways of acting that they see modeled, and research has indicated that individuals copy what they see on television and read in magazines when it comes to dieting behaviour (Harrison and Cantor, 1997). Since imitation plays a powerful role in human behaviour, it may be that media attention to eating disorders is resulting in an increased instance of anorexia nervosa and bulimia in some individuals through imitation. The more predominant an event is, the more likely it is to be imitated (Bandura, 1977). Applying this model to the current topic indicates that the more presentations of anorexia nervosa and bulimia an individual encounters, the greater the likelihood for imitation of these conditions.

Professionals who work with victims of eating disorders have noted that some individuals will imitate disordered eating behaviours when these behaviours are modeled for them. For example, Silber (1987) described two separate case studies in which adolescent patients developed an eating disorder during hospitalization for medical reasons. In both cases, the individuals were believed to have been influenced by anorexic patients on the ward, and were charged with copying these patients. A recent article in the American Psychological Association's *Monitor on Psychology*

(Murray, 2002), focused on the issue of "contagion" among individuals with eating disorders. The article discussed the newly-recognized problem of hospitalized eating disorder patients trading "thinness tips" and encouraging one another in the pursuit of low body mass. These reports of imitation by Silber and Murray came after exposure to real-life models of anorexic behaviour.

There is some initial evidence that exposure to print media about eating disorders may encourage imitation in some individuals. Habermas (1992) interviewed individuals suffering from bulimia and noted that in some cases, "...patients said that the information about bulimia nervosa inspired them first to try out self-induced vomiting as a means for weight control" (p. 63). In these cases, bulimic women reported imitation of print descriptions of bulimia.

Overall, this evidence gives weight to the assertion that popular magazine presentations of eating disorders may lead to imitation of the described behaviours in some individuals. By reporting and focusing on disordered behaviours, these articles may encourage imitation by certain readers with predisposing vulnerabilities towards the conditions.

Normalization

Bishop (2001) used narrative analysis to explore the dominant themes in 47 feature articles on eating disorders appearing in women's magazines since 1980. He notes that many of the narratives over-emphasize the extent to which eating disorders are a concern for young women, implying that eating disorders are typical and that "a bout with an eating disorder is an inevitable part of life for young women, that an eating disorder is a bizarre rite of passage" (p. 230). Overall, Bishop notes that many

popular magazine articles imply that "eating disorders are easy to get, easy to cure, and have no lasting power over the sufferers" (p. 230). He goes on to comment,

> A potential danger in framing eating disorders in this fashion is that a young person could read an article and think that having an eating disorder is not all that bad. Instead of seeing anorexia nervosa as a metaphor for our culture's obsession with thinness, young people could begin to see it as a rite of passage, as part of the price to pay for acceptance (p. 234).

Bishop's comment highlights his concern that popular magazine articles on eating disorders may lead young individuals to incorrectly assume that an eating disorder is not very serious, and in fact fairly normal behaviour.

Hardin (2003) also believed that the media normalizes eating disorders in a harmful manner. She comments, "Through the practice of repeatedly describing stories about self-starving women, normative boundaries (e.g., what constitutes 'anorexia nervosa') have been made publicly available" (p. 213). That is, anorexia nervosa has in some sense become viewed as a "normal" condition that many people suffer from. Hardin (2003) goes on to note that by "telling and retelling cautionary tales" (p. 213) about anorexia nervosa, the media has increased public awareness about the act of self-starvation, and has turned into an advertisement for unhealthy eating practices. She concludes, "...books, articles, and stories about self-starving women demonstrate the 'norm' of what self-starving people do" (p. 214).

Attempts to encourage individuals with eating disorders to seek treatment may unintentionally imply that eating disorders are "normal" to non-eating disordered individuals. Mann, Nolen-Hocksema, Huang, Burgard, Wright, and Hanson (1997)

differentiate between primary and secondary prevention of eating disorders. Primary prevention has the goal of preventing new cases from arising (aimed at healthy individuals). This is contrasted with secondary prevention, which has the goal of preventing serious illness by detecting eating disorders early and treating them early (aimed at those in the early stages of an eating disorder). The authors note that the two types of prevention may be incompatible. Specifically, attempts to convince those in the early stages of an eating disorder to seek treatment may harm healthy individuals, by impressing upon them that eating disorders are "normal" and easily remedied. This could reduce the stigma associated with the disorders and increase the likelihood of experimentation with eating disordered behaviours.

Mann et al., (1997) evaluated the results of an eating disorder prevention program presented to college freshmen. They found that the prevention program did not prevent eating disordered behaviours in the students who attended the program. Paradoxically, students who attended the program reported more symptoms of eating disorders than did the students in the control group, though there were no significant differences between the groups before the implementation of the program. The authors concluded that "eating disordered behaviours may be promoted rather than prevented at many universities" (p. 250). That is, the very programs designed to protect college-aged women from experiencing eating disorders may be leading to increased symptomatology.

Glamorization

Schulze and Gray (1990) note that in the case of bulimia, "it is possible that in the portrayal of bulimia nervosa the media may have associated it with desirable

symbols such as achievement and glamour" (p. 83). The authors also comment that individuals with bulimia profiled in magazines often have what is widely considered to be an ideal body, and comment, "rarely is an individual with bulimia nervosa presented as being obese, unattractive or unsuccessful" (p. 83).

In his 1987 article, Silber describes two case studies in which adolescent patients hospitalized for non-psychiatric concerns began suffering from the symptoms of an eating disorder after being exposed to patients hospitalized for the treatment of anorexia nervosa. Silber argues that these patients were motivated to imitate the anorexic patients because of admiration of the condition of anorexia nervosa, commenting,

> In some way, their ambivalent admiration for their anorexic peers may not be very different from what one can see in high schools, where the anorexic adolescent has become the cultural heroine of the 1980s, in a way analogous to the "rebels without a cause" of the 1950s, and the "flower children" of the 1960s (p.454).

Silber notes that anorexia nervosa may be likely to be imitated when it becomes glamorized and is seen as a method of rebelling against authority. Silber's linking of anorexia nervosa with the flower children of the 1960s represents a view of anorexia by imitators as an admirable and meaningful political protest.

In his narrative analysis of feature magazine articles on eating disorders, Bishop (2001) found that the individuals profiled in these articles tended to be White (in 44 out of 47 cases) and of affluent backgrounds. That is, the eating disordered individuals profiled in magazines tended to have dominant demographic

characteristics which may be seen as desirable. Silber (1987) also indicated that his patients may have imitated anorexic behaviour because of "envy" due to a "clear social class difference" (p. 454) between themselves and the girls with anorexia nervosa. In this case, anorexia nervosa became associated with wealth and was seen as "stylish" (p. 454).

In their interviews with 28 anorexic women (Williams et al., 2001), the authors discovered several instances in which "articles that may have been written to scare women away from eating disorders were actually used by some patients to support their eating-disordered cognitions and behaviours" (p. 57). One woman implicated glamorization, stating:

> I remember reading once like in a teen magazine or something like that... and it was about an anorexic girl... Maybe the intention was to say, "Girls, this is really a problem," but it totally glamorized it in my eyes. To me it was saying to girls, "Look, here's an option" (p. 57).

For this woman, something about the nature of the popular magazine article served to glamorize anorexia nervosa. In another study by Hardin, (2003) an anonymous poster on a support board for eating disorders commented on the glamorization that comes with publication, stating, "Once you tell your story, the glossy cover is automatically placed over it. If it is in print... it is considered glamour!" (p. 213). A third woman with anorexia (Williams et al., 2001) noted "...anorexia I don't think is portrayed as a disease, [by the media] but I see it almost a reward, a prize kind of thing" (p. 58).

"Weight Loss Secrets" and Triggers

Young women who suffer from internalization of the thin ideal and/or self-objectification may view articles on eating disorders as containing the answer of how to obtain a slim body. Chiodo & Latimer (1983) noted that, when presented with a popular magazine article on anorexia/bulimia, a significant number of bulimic women reported receiving the message of "here's a way in which another person keeps her weight down." In fact, five out of the twenty-seven women interviewed by Chiodo and Latimer indicated that their first source of awareness of vomiting as a weight-control method came from reading a popular article on anorexia nervosa or bulimia.

In their interviews with anorexic patients Williams et al. (2003) note that some women turn to magazines looking for methods of weight loss. One women suffering from anorexia stated, "If a magazine would say, 'bulimia ruined my life,' I would read it just to get ideas… I wanted to get people's ideas and I wanted to figure out what Karen Carpenter did because I needed to do the same thing" (p. 129). Another patient turned to "beauty, fashion and fitness magazines for help in learning how to purge" (p. 57).

A narrative analysis by Bishop (2001) found that writers of popular magazine articles go into "graphic detail" (p. 231) about specific disordered behaviours, such as the number of times an individual vomits, or the ways in which an individual avoids eating. Bishop's analysis indicates that popular magazine articles contain information which could possibly be seen as "tips" or "tricks" as to how to obtain thinness by some readers.

Using a feminist poststructuralist methodology, Hardin (2003) analysed online accounts and individual interviews to examine the ways in which young women achieve an identity of "anorexic." Hardin notes that many eating disordered individuals openly acknowledge the process of "triggering" or being triggered. She explains, "Triggering refers to the notion that after reading books, stories, articles, or seeing pictures and movies about people who self-starve, weight loss behaviours intensify" (p. 212). She links the triggering phenomenon to the fact that individuals with eating disorders are highly competitive with one another. Williams et al. (2003) reports that several patients indicated wanting to learn how to be the 'best' anorexic from magazines, with one woman stating, "If the article said she weighed 88 pounds than I knew I could do 87" (p. 55).

Confusion Due to Magazine Emphasis on Thinness

Preliminary research indicates that some women with anorexia are confused about the meaning of cautionary articles on eating disorders in the context of the magazine's overall focus on beauty and thinness. In interviews conducted by Williams et al. (2003) a woman expresses her puzzlement about the presence of an article on eating disorders in the context of a beauty magazine, stating, "I mean on one page, you got the girl with the disease. On the other page, you've got the model. And they look exactly the same" (p. 58). With this comment, the woman reveals the fact that, in her eyes, the magazine glamorizes and idealizes models who are as thin as individuals with anorexia nervosa. Field, Camargo, Taylor, Berkey and Colditz (1999) found that the more effort girls made in attempting to look like women in

magazines, the higher their risk of using vomiting or laxatives to control weight. The authors concluded,

> Although the print media publishes articles on the deleterious effects of severe dieting, bulimic behaviours, and maintaining a very low body weight, the articles frequently are included in the same issue as pictures of excessively thin models. It is likely that these pictures undermine the potential beneficial effect of the articles, as opposed to lessen the detrimental impact of the photos (p.1188).

Overall, this initial evidence, and comments by researchers indicates that the efforts of beauty/fashion magazines to educate women about eating disorders may be viewed as confusing or ineffective by some readers. That is, the fashion magazines' bias towards thinness may mean attempts to caution readers against eating disorders are seen as hypocritical at best, and possibly even as a subtle message about the significance, successfulness and importance of individuals who lose weight.

Early Experimentation Leading to Full-Blown Illness

A woman who feels shame over her failure to conform to a socially acceptable body type (consistent with self-objectification) may be more likely to fall into eating disordered practices if she is exposed to material describing how to go about this. The woman (made vulnerable through her self-objectification) may decide to experiment with the anorexic/bulimic behaviours described in the magazine article, in an attempt to achieve a thin body. Individuals with preexisting vulnerabilities who are exposed to magazine articles describing eating disorders may be more likely to

develop anorexic/bulimic symptomatology than are similarly vulnerable individuals who are not exposed to such articles.

The addictive and harmful nature of eating disordered behaviours makes even casual experimentation dangerous. Garner and Garfinkel (1997) comment that it is common for patients to report an 'anorexic identity.' That is, once anorexia nervosa is diagnosed, some individuals with the disorder find it difficult to separate themselves from the categorical description of "anorexic," increasing the difficulty of recovery. Hoskins (2002) argues that many individuals fall into an eating disorder through experimentation with symptoms. She observes, "What begins as an 'experiment' – a trying on of an anorectic identity (for example, being in control, engaging in ritualized behaviour, striving for perfection, resisting temptations) often becomes a game that cannot be easily reversed" (p. 238).

Although Hoskins speaks exclusively of anorexia nervosa as an identity that is experimented with, her comments apply equally well to bulimia. That is, individuals may experiment with bulimic symptoms, only to find themselves trapped in an addictive cycle of starving, bingeing and purging. Evidence suggests that the physiology of eating disordered patients may adjust to support the new, disordered behaviour (*DSM-IV-TR*, 2000). In some cases, physical changes in the body (i.e., atrophy of the digestive system, metabolic slowing, automatic vomiting) make it extremely difficult to cease eating disordered behaviour once it has begun to occur.

Statement of the Problem

Eating disorders are a rapidly growing health concern, with a high mortality rate (Lucas et al., 1991; Neumaerker, 2000). The rate of eating disorders in North

America has increased substantially over the last 50 years (Leichner & Gertler, 1988). The conditions generally originate in adolescence, continue into the young adult years, and primarily affect women (DSM-IV-TR, 2000; Beument, 2002). Popular magazines, implicated in the etiology of eating disorders (Pinhas et al., 1999; Tiggemann, 2003), have recently become involved in educating the public about the conditions (Schulze & Gray, 1990). Varied evidence indicates that these popular magazine articles on eating disorders may increase readers' likelihood of exhibiting eating disorder symptomatology, due to imitation, normalization, glamorization, and learning weight loss tips/tricks. Existing studies have identified a link between reading beauty magazines and developing body dissatisfaction, self-objectification and eating disorder symptomatology. There have been several studies of a qualitative nature that have investigated the experiences of women who read beauty magazines, with some women spontaneously commenting on the effect of reading popular magazine articles on eating disorders. From these studies, it is still unclear whether magazine articles are focusing on aspects of eating disorders that may be damaging to readers, or whether anorexic or bulimic readers themselves selectively attend to the articles in a damaging manner.

The majority of existing research examines eating disorders related to general exposure to popular magazines, with no focus on popular magazine articles that specifically portray eating disorders. Few studies have specifically examined the content of popular magazine articles on eating disorders. The small amount of quantitative research that has been done has focused primarily on bulimia (i.e., Habermas, 1992; Schulze, & Gray, 1990), with little attention to media presentations

of anorexia nervosa. Additionally, much of the research includes qualitative interviews with small numbers of participants (Williams et al., 2002).

The sole study that gives an in-depth examination of the content of popular magazine articles on eating disorders is qualitative in nature. Bishop (2001) conducted a study on popular magazine coverage of eating disorders using a narrative approach. He identified themes that he judged to have emerged from these popular articles. Themes identified by Bishop were suffering alone, implicating a single event as causing the eating disorder, emphasizing control and competition, and portraying recovery either as an ongoing struggle, or as being exclusively related to weight. It is unclear whether the themes identified by Bishop represent the main focus of the majority of the articles, or whether the researcher selectively attended to such details and formed a particular impression. Bishop gives no extensive, thorough, examination of the information covered by each article.

A quantitative analysis of popular magazine articles on eating disorders will allow the researcher to determine whether articles focus more on disordered behaviours and disordered weights, or on consequences of the eating disorders. It will allow the researcher to examine the demographics of individuals with eating disorders portrayed in popular magazines. It will allow a concrete comparison of the content of the magazine articles (i.e., individuals' BMI, meal plans, exercise routines, caloric intake) compared to factual information on eating disorders obtained through clinical research. This will allow an assessment of the accuracy of the magazine's portrayals of eating disorders.

This study is unique in its focus on the descriptive and quantitative content of popular magazine articles on eating disorders. It is important to examine the content of these articles, in order to begin the process of researching their impact on impressionable readers. Although initial evidence suggests these articles may have the effect of encouraging eating disordered behaviour (Hardin, 2003; Williams et al., 2002), the specific content which may elicit these impulses has not yet been identified.

Purpose and Study Hypotheses

The purpose of this study is to systematically examine the content of popular magazine articles on eating disorders, including the demographic characteristics of the individuals profiled and the information presented about their weight, eating habits, exercise patterns, and other methods of weight control. The information presented about the physical and psychological consequences of eating disorders, types of treatment and the nature of the recovery process will also be examined.

Two hypotheses about magazine article content will also be tested. The first hypothesis is that, due to the emphasis placed on thinness by fashion magazines, the articles will focus primarily on individuals suffering from anorexia nervosa rather than bulimia. The second hypothesis of the study is that the popular magazine articles will focus more heavily on the disordered behaviours used to achieve or maintain weight loss than on the physical health risks associated with these behaviours.

The next chapter describes the criteria used to select magazine articles to be included in this study, and the strategies used to obtain recent magazine articles about eating disorders. The specific aspects of the magazine article content that were

tracked (i.e., demographic information, mention of weight, mention of disordered behaviours, mention of treatment) and the methods of tracking key content areas are also described.

CHAPTER III

METHOD

This chapter describes the criteria for selecting magazine articles to be included in this study, and the strategies used to obtain recent magazine article information about eating disorders. The specific aspects of the magazine article content that were tracked and the methods of tracking them are also outlined.

Criteria for Magazine Article Selection

The magazines included in the current study were: *Cosmopolitan*, *Glamour*, *Mademoiselle*, *People Weekly*, *Self*, *Seventeen*, *Teen People*, *Vogue*, and *YM* (Young and Modern). These magazines (excluding *People Weekly* and *Teen People*) were classified as beauty magazines by Morry and Staska in an article in the *International Journal of Eating Disorders* (2001), due to their focus on clothing and appearance. They were identified as presenting the types of images of the thin beauty ideal that have been implicated in the etiology of eating disorders in Western societies. A decision was made to include *People Weekly* and *Teen People* in the group of magazines to be analysed, due to the fact that these magazines are also heavily image focused, and contain many of the photos of thin models and actresses that appear in more standard beauty magazines. In addition, the target audiences of *People Weekly* and *Teen People* are of the same demographic as the other beauty magazines included in this study (female adolescents and young women), and match the age in which the onset of an eating disorder is typically observed. Magazine Title was treated as a categorical variable in this study, and was coded as follows: 1=Cosmopolitan,

2=Glamour, 3=Mademoiselle, 4=People, 5=Self, 6=Seventeen, 7=Teen People, 8=YM, and 9=Vogue.

To be included in this content analysis, an article had to mention anorexia nervosa (or "anorexia" as the condition is referred to in the popular literature) and/or bulimia at least three times within the text of the piece. This criterion was set to ensure that the main focus of the article concerned eating disorders, and to screen out magazine articles which made only passing references to anorexia nervosa or bulimia (e.g., when giving the brief background of an actress). Articles were required to be at least 500 words in length to be included in the study. This minimum word count was required to ensure that the articles were of a sufficient length to convey an impression about eating disorders on their readers.

Search Strategy

A search was performed to obtain all the articles on anorexia nervosa and bulimia from these magazines published within the last five years (1998-2003). The five year time period was chosen to allow a thorough appraisal of recent coverage of eating disorders in the popular media.

The search terms "anorexia," "bulimia," and "eating disorder" were entered separately into an internet database of popular magazine articles called the Reader's Guide Abstracts. The Reader's Guide Abstracts search resulted in a list of articles that contained the key search terms. Articles that contained the term eating disorder but referred exclusively to Binge Eating Disorder were not included in this content analysis, as their focus was outside the purpose of this study. The articles on anorexia nervosa and/or bulimia in the nine target publications were obtained through the

University of Alberta Library, the Edmonton Public Library, and the Calgary Public Library. Several articles were available on internet databases (e.g., *People Weekly* is available full-text on an electronic database called EBSCO). Some of the articles were obtained in their original format and layout, while some were available as text only (missing original photographs). In total, 18 of the 42 of the articles obtained for this study were collected in text-only form from the internet, while the remaining 24 were collected as photocopied original articles. The articles collectively profiled 79 eating disorder sufferers. The remainder of this chapter describes the coding schemes used to examine the profiles of eating disorder sufferers and magazine article content. The results of the content analysis are presented in the next chapter.

Tracking and Coding of Information

The articles were coded for key information, both general and demographic. The purpose of this coding was to assess the focus of popular magazine articles on eating disorders, and to determine whether the information presented is realistic and accurate. It was also to track whether eating disorders are being glamorized in popular magazines (i.e., through association with celebrities, or by indicating that positive cosmetic consequences can occur as the result of an eating disorder).

Profiles of Eating Disorder Sufferers

Profiled individuals were coded as to their gender (categorical variable: female=1, male=2), age at onset of illness (continuous variable, in years), current age (continuous variable, in years), race (categorical variable: 1=White, 2=African American, 3=Hispanic), years of illness (continuous variable, in years) and years of recovery (continuous variable, in years). When articles mentioned both height and

weight, the individual's Body Mass Index (BMI) was calculated. The BMI is calculated by taking weight in kilograms and dividing by squared height in meters. This measure allows comparison of the weight of individuals of varying heights and genders. A BMI of less than 17.5 indicates an individual is severely underweight, and is also used to indicate a diagnosis of anorexia nervosa. For women a BMI of less than 19.1 is considered underweight, and for men, a BMI of less than 20.7 is considered underweight. For women, a healthy BMI ranges between 19.1 and 25, and for men, a healthy range is between 20.7 and 25. A BMI between 25 and 29.9 is considered "overweight," and greater than or equal to 30 is "obese." These definitions are used by the World Health Organization as its international standard (WHO, 1995). The cut-off of a BMI of 17.5 or below for a diagnosis of anorexia nervosa is also delineated in the *DSM-IV-TR* (American Psychiatric Association, 2000). When possible, BMI was calculated for individuals prior to the development of their eating disorder, during the most severe period of their eating disorder, and after recovery from the eating disorder. Weight difference (the difference, in pounds, between the individual's highest and lowest reported weight) was also calculated, in order to determine how radically the individual's body changed in size during the course of an eating disorder.

Focus of Article Content

Illness. Both the individuals (n=79) and the articles (n=42) were coded for Illness (categorical variable: 1=anorexia, 2=bulimia, 3=both anorexia and bulimia). Individuals were classified as suffering from anorexia nervosa, bulimia or a combination of the two. Classification of individuals profiled was determined by

article text. Many articles labeled individuals' illnesses, specifying as to whether each individual profiled suffered from anorexia, bulimia or both. In cases where the individual's illness was not labeled by the authors, a judgment was made based on the individual's symptoms as described by the author. Individuals who primarily restricted food intake and achieved significant weight loss (a BMI of less than 17.5) were classified as suffering from anorexia. Individuals who restricted food intake and achieved weight loss, but also engaged in bingeing and purging through vomiting or laxatives were classified as suffering from anorexia and bulimia. Individuals who binged and purged without achieving clinically significant levels of weight loss were classified as suffering from bulimia. These classification criteria are consistent with the basis for differentiation of eating disorders contained in the *DSM-IV-TR* (American Psychiatric Association, 2000).

Articles were categorically coded as focusing on anorexia nervosa, bulimia or both (1=anorexia, 2=bulimia, 3=both anorexia and bulimia). Articles were often classified based on their title. For example, the article entitled *My Mother Gave Me Anorexia* (Colino & Koli, 2002) was coded as portraying anorexia nervosa, while the article titled *A Top Model's Battle with Bulimia* (Roth, 1999) was classified as portraying bulimia. In cases where the illness did not appear in the title, a judgment was made based on the individual(s) profiled in the article. An article that profiled exclusively anorexic individuals as classified by the previously stated criteria was categorized as focusing exclusively on anorexia nervosa. Articles profiling a mix of individuals, with both anorexia nervosa and/or bulimia were classified as focusing on

both illnesses. Finally, articles that profiled only bulimic individuals were classified as focusing exclusively on bulimia.

Visual images. When possible, the number of photographs contained in the articles were tracked and counted. Articles were also classified and tracked as to whether they focused on a celebrity, versus a non-celebrity or member of the general public (categorical variable: 1=celebrity, 2=non-celebrity). Professional actors, singers, dancers, models, athletes and members of the royal family were classified as celebrities, with all other individuals profiled classified as non-celebrities.

Length of illness. Length of illness referred to the number of years an individual was identified as having suffered from an eating disorder, according to the author of the article. In some cases, it was impossible to determine the length of illness, due to a lack of information in the narrative. Length of illness was calculated in years, from the time period where eating disorder symptomatology first appeared, until recovery from the eating disorder was reportedly achieved.

Mention of weight. "Mention of Specific Weight" was coded for each article. This was both a categorical variable (specific weight mentioned, 1=yes, 2=no) and a continuous variable (number of times specific weight mentioned). To be coded, the article had to make a statement about the weight of a profiled person that involved a specific number. For example, the statement, "by October, Sara's weight had dropped to 82 pounds," would be counted as mentioning weight once. A statement such as, "Within a month, she had lost 10 kilograms," would also be coded as mentioning specific weight once. A statement such as, "She lost a great deal of

weight and became very thin," would receive no coding, as it contains no specific number.

Weight difference. Weight Difference was calculated with the intent of examining how different the weight of the profiled individual was with and without an eating disorder (continuous variable, in pounds). Weight difference was calculated in pounds, and was obtained by subtracting the person's lowest reported weight from his/her highest reported weight (either pre-eating disorder, or post-eating disorder).

Clothing size. Articles were coded as to whether they mentioned specific clothing sizes. This was both a categorical variable (clothing size mentioned, 1=yes, 2=no) and a continuous variable (number of times clothing size mentioned). For example, a statement such as, "Melanie was wearing size ten children's pants, but still felt she needed to be smaller," would be coded as mentioning clothing size one time.

Caloric intake. Articles were coded as to whether they mentioned a specific number of calories eaten. This was both a categorical variable (caloric intake mentioned, 1=yes, 2=no) and a continuous variable (number of times caloric intake mentioned). For example, a statement such as, "Most of the time, Julie had about 400 calories a day," would be coded as mentioning a specific number of calories once.

Disordered behaviours. Each article was coded for eating disordered behaviours described. A Disordered Behaviour is any technique used by an individual to lose weight (e.g., over-exercising), prevent weight gain (e.g., purging food through vomiting), hide weight loss (e.g., water-loading) or is clearly part of a sequence of eating disordered behaviour (e.g., bingeing). Each disordered behaviour was both a categorical variable (behaviour x mentioned, 1=yes, 2=no) and a

continuous variable (number of times behaviour x mentioned). If an article mentioned a specific behaviour more than once, it received a coding each time the behaviour was mentioned. That is, an article which described three separate vomiting incidents would receive a count of three for purging through vomiting.

Menu and exercise schedules. Articles were coded as to whether they contained the specific "menu" of an eating disordered person. This was both a categorical variable (specific menu mentioned, 1=yes, 2=no) and a continuous variable (number of times specific menu mentioned). To be included, the menu had to list the daily food intake of an individual with an eating disorder, mentioning specific types of foods. For example, the statement, "Jenny ate an orange for breakfast, a diet coke for lunch and half a bagel for dinner" would receive one coding for specific food list. The statement, "Jenny ate very little all day," would receive no coding for specific food list, as the information is vague, and contains no specific foods or portion sizes. Similarly, articles which list the specific daily exercise plan of an eating disordered individual received a coding of one specific exercise plan. This was both a categorical variable (exercise plan mentioned, 1=yes, 2=no) and a continuous variable (number of times exercise plan mentioned). Mentioning over-exercising alone did not result in this coding; this information was only tracked if the article gave specific and detailed instructions for a daily exercise routine.

Consequences of Eating Disorders

Physical consequences. The magazine articles on eating disorders were coded for negative physical consequences listed. These consequences were coded both as a categorical variable (physical consequence x mentioned, 1=yes, 2=no) and a

continuous variable (number of times physical consequence x mentioned). A comment was coded as a physical consequence if it involved physical or medical problems with the body that were described as being a direct result of the eating disorder. For example, a statement such as, "Melanie's period stopped as a result of her strenuous dieting and exercising" would be coded as containing one physical consequence (amenorrhea).

The articles were also coded as to whether they indicated that eating disorders are sometimes fatal conditions. This was both a categorical variable (death mentioned, 1=yes, 2=no) and a continuous variable (number of times death is mentioned). Each mention of death or mortality resulted in one coding of death. For example, the statement, "Two years ago, Mary almost starved herself to death" would receive a code of one for one mention of death. A statement such as: "Eating disorders have an extremely high mortality rate" would also receive one coding for mention of death.

Psychological consequences. The magazine articles were coded for negative psychological consequences. These consequences were coded both as a categorical variable (psychological consequence x mentioned, 1=yes, 2=no) and a continuous variable (number of times psychological consequence x mentioned). A psychological consequence was coded when a statement indicated that an individual was psychologically affected by his/her eating disorder in a negative manner. For example, a statement such as, "After a few months of bingeing and purging every day, I became very depressed" would receive a code of one psychological problem (depression).

Cosmetic consequences. The articles were coded as to whether they mentioned negative cosmetic consequences of eating disorders. Negative cosmetic consequences were coded both as a categorical variable (negative cosmetic consequence mentioned: 1=yes, 2=no) and a continuous variable (number of times negative consequences are mentioned). A negative cosmetic consequence of an eating disorder is any mention of an unattractive physical appearance as the result of an eating disorder. For example, the statement, "Kara's eating disorder advanced to the point where she looked positively freakish" would be coded as mentioning one negative cosmetic consequence. Some physical symptoms of eating disorders (lanugo, hair loss, yellowing of the skin, premature aging) were coded as negative cosmetic consequences, due to the assumption that a magazine reader would view these symptoms as altering the appearance in a negative manner.

A positive cosmetic consequence of an eating disorder is any mention of an attractive physical appearance as the result of an eating disorder. Positive cosmetic consequences were coded both as a categorical variable (positive cosmetic consequence mentioned, 1=yes, 2=no) and a continuous variable (number of positive cosmetic consequences were mentioned). For example, the following statement from an individual who had been purging and restricting, "As the weight dropped off, I got tons of compliments, and everyone told me I looked great", would be coded as one positive cosmetic consequence.

Depiction of the Recovery Process in Magazine Articles

Each individual received a coding as to whether they experienced recovery, or did not experience recovery (due to continued illness or death). Whether or not

"recovery" was reached depended on whether the author of the article indicated that the individual was now "in good health" or "recovered." Recovery status was a categorical variable with two possibilities, recovered or non-recovered (1=recovered, 2=non-recovered).

Length of recovery and treatment. Years of recovery was defined as the number of years it takes the individual to recover, once treatment is initiated. Only the individuals who had achieved recovery were included in this calculation. As well, some individuals clearly achieved recovery, but due to lack of dates or a time frame, it was impossible to calculate Years of Recovery. Years of Recovery was a continuous variable, measured in years.

Each mention of any type of treatment, (including numerous mentions of the same treatment type) was included for analysis. Treatment involved any form of professional intervention, such as counselling, hospitalization or family therapy. Each treatment was coded categorically (1=treatment x mentioned, 2=treatment x not mentioned) and continuously (number of times treatment x was mentioned).

The next chapter discusses the results of the application of these tracking and coding schemes to the 42 magazine articles included in the content analysis. The popular magazine article portrayals of eating disorders and their sufferers will be described.

CHAPTER IV

RESULTS

The purpose of this study was to examine the content of popular magazine articles on eating disorders, including the demographic characteristics of the individuals profiled and the information presented about their weight, eating habits, exercise patterns, and other methods of weight control. The information presented about the physical and psychological consequences of eating disorders and the nature of the recovery process was also examined. In this chapter, the results of the content analysis are presented, along with the tests of study hypotheses.

Articles Included in the Study

A total of 42 articles on anorexia nervosa and/or bulimia that met the study criteria were published in the target magazines in the five year period from 1998-2003 (See Appendix A for a comprehensive list of the articles). One article (2.4%) was from *Cosmopolitan*, ten (23.8%) appeared in *Glamour*, two (4.8%) appeared in *Mademoiselle*, twenty (47.6%) appeared in *People Weekly*, three (7.1%) appeared in *Self*, two (4.8%) appeared in *Seventeen*, one (2.4%) appeared in *Teen People*, one (2.4%) appeared in *Vogue* and two (4.8%) appeared in *YM*. To be included in the current content analysis, the article was required to mention anorexia nervosa and/or bulimia at least three times within the text of the piece, and have a minimum length of 500 words. One article in *Glamour* magazine used the term "chronic dieting" as a euphemism for anorexia nervosa. The article profiled a woman who lost a large amount of weight through food restriction, obtaining a Body Mass Index of 15.9 at her lowest weight. A decision was made to include this article in the analysis for two

reasons: (1) the consistency between the focus of the article and the focus of this study, and (2) the fact that the individual profiled met the *DSM-IV-TR* (2000) criteria for anorexia nervosa.

All of the articles focused on one or more sufferers of an eating disorder, and many went on to include a more general discussion of eating disorders, including signs and symptoms. A total of 79 individuals were profiled across the 42 articles included in this study. The mean number of individuals profiled per article was 1.6 (range 1 – 7). The articles tended to include photographs of either eating disorder sufferers at various stages of their disorders, and/or visual images highlighting weight or body image issues. Images shown included a photo of food being thrown into the garbage, a photo of a scale, etc. An examination of the number of photographs per article revealed a mean of 3.9 (range = 1 – 19, SD = 3.5).

Profiles of Eating Disorder Sufferers

Thirteen of the articles (31.0%) focused on celebrities with eating disorders, while twenty-nine (69.0%) focused on non-celebrities. Celebrities profiled included a television actress, an Olympic medal winner, a fashion model, a princess, and a movie actress. The majority (n=76, 96.2%) of the individuals profiled were women, while a minority of them (n=3, 3.8%) were men. Race was determined by observing photographs accompanying the articles, or through in-text descriptions of the individuals being profiled. Many individuals profiled received no race classification in the article text. Of the 79 eating disorder sufferers, it was possible to determine the race of 45 individuals. Of these, the majority (n= 41, 91.1%) of the individuals

profiled were White, and a small minority were African American (n=3, 3.8%), or Hispanic (n=1, 2.2%).

The age of the individuals profiled varied. Often the articles mentioned both the individuals' current ages and the ages at which they first developed an eating disorder. According to the descriptions provided by the authors of the articles, the profiled individuals developed their eating disorders at various ages, ranging from an alleged 2.5 years of age to 67 years of age. The average age of onset of an eating disorder across the articles was 16.8 years (SD=8.6). The age of the individuals profiled at the time the article was written ranged from 6 years old to 63 years old, with an average age of 27.0 years (SD=11.1).

Out of the 79 individuals profiled, the majority (n=60, 75.9%) were identified by the magazine article authors as suffering from anorexia nervosa, several (n=13, 16.5%) were identified as suffering from both anorexia nervosa and bulimia, and very few (n=6, 7.6%) were identified as suffering exclusively from bulimia. It was possible to calculate length of illness of 55 of the individuals. The articles analysed portrayed eating disorders of varying lengths, ranging from six months to 30 years, with the average length of illness from onset to recovery being 7.3 years (SD=6.5).

Focus of Article Content

Type of Eating Disorder Addressed

The majority of the magazine articles (n=26, 61.9%) focused exclusively on anorexia nervosa, profiling only anorexic individuals. Several articles (n=13, 31.0%) addressed both anorexia nervosa and bulimia. Some of these articles profiled a single individual who had reportedly experienced both eating disorders at various points in

time, while other articles focused on different individuals experiencing each disorder. A small number of articles (n=3, 7.1%) focused exclusively on bulimia.

Weight, BMI, and Clothing Size

The majority of the articles (n=39, 92.9%) mentioned the weight of the individual(s) profiled at least once. The weight of individuals before the development of an eating disorder was mentioned in 42.9% of the articles (n=18), and the average number of times a pre-eating disorder weight was mentioned per article was 0.8 (range: 0 – 6; SD=1.2). The weight of individuals during their eating disordered period was mentioned in 88.1% of the articles (n=37). The average number of times an eating disorder weight was mentioned per article was 3.0 (range: 0 – 17; SD=3.5). The weight of individuals after the recovery process was mentioned in 47.6% of the articles (n=20), with the average number of times a post-eating disorder weight was mentioned being 0.9 (range 0 – 4, SD=1.1).

When articles mentioned both an individual's height and weight, the Body Mass Index (BMI) for that individual was calculated. The BMI is calculated by taking weight in kilograms and dividing by squared height in meters. This measure allows comparison of the body mass of individuals of varying heights and weights. BMIs of individuals prior to the development of, during, and after recovery from their eating disorders (either anorexia nervosa, bulimia or both) were examined. Subsequently, the BMIs of individuals identified as suffering exclusively from bulimia were examined in isolation, in order to assess the accuracy of the information presented.

For the majority of the individuals profiled (n=53, 67.1%) at least one mention of both height and weight was made, allowing BMI to be calculated. Several of the articles (34.2%) allowed the calculation of BMI prior to the onset of the individual's eating disorder. The average BMI for individuals prior to the development of an eating disorder was 21.1 (range: 18.5-31.9, SD=2.8). The majority of the articles (n-53, 67.1%) contained the information necessary to calculate the BMI for an individual during the most severe period of his or her eating disorder (the time when he or she was at the lowest reported weight). The average BMI for an individual during the most severe period in which she or he suffered from an eating disorder was 15.2 (range: 9.2-24.2, SD=2.7). Several of the articles (31.4%) contained the information necessary to calculate BMI after recovery had occurred. The average BMI of an individual after recovery from anorexia nervosa or bulimia was 20.0 (range: 16.5-24.1, SD=2.3). It is worth noting that 27.3% (n=6) of the articles contained height and weight information of people identified as being in "recovery" from eating disorders that reflected BMIs of 17.6 or below. These BMIs are still consistent with the symptoms and diagnostic criteria for anorexia nervosa, despite the magazine articles' assertions of the individuals' recovery.

Only one individual profiled had a BMI that was classified as being overweight (BMI above 25) before the onset of her eating disorder. None of the individuals had a BMI classified as overweight during the period in which they suffered from anorexia nervosa and/or bulimia. Similarly none of the individuals had a BMI classified as overweight after recovery was achieved. Although only six of the individuals profiled (7.6%) suffered from bulimia, the BMI of these individuals was

examined separately from the rest of the sample. No articles contained the information necessary to calculate the BMI of these individuals before the development of bulimia. The range of BMI during bulimia was 16.7 – 24.2, with an average BMI of 19.5. Two individuals met the BMI criteria for anorexia nervosa, although the magazine articles identified them as bulimic. The two articles which list recovery BMIs for bulimic individuals list BMIs of 21.4 and 21.7 (M=21.6).

Besides BMI data, the difference between the weight of the profiled individuals during their eating disorders and before the onset of the disorders, or in the recovery phase, was also examined. Weight difference was calculated in pounds, and was obtained by subtracting the person's lowest reported weight from his or her highest reported weight (either pre-eating disorder or post-eating disorder). The majority of the articles (n=40, 50.6%) contained enough information to allow Weight Difference to be calculated. The average weight difference between disordered and healthy periods across the individuals profiled in the magazines was 36.3 lbs. (range: 10.0 lbs-70.0 lbs, SD=15.7).

In addition to specific information about body weights, a minority of the articles mentioned clothing size at least one time (n=12, 28.6%). Before the development of the eating disorder, clothing size was mentioned in 14.3% of the articles (n=6), and a pre-eating disorder clothing size was mentioned on average 0.2 times per article. During the eating disorder, clothing size was mentioned in 23.8% of the articles (n=10). Clothing size was mentioned during the eating disordered period an average of 0.4 times per article. After recovery from the eating disorder, clothing

size was mentioned in 9.5% of the articles (n=4). Post-eating disorder clothing size was mentioned an average of 0.3 times per article.

Caloric Intake

Thirty-one percent of the articles (n=13) mentioned the specific numbers of calories the individuals consumed at least one time. Prior to the development of the eating disorder, the specific number of calories consumed appeared in 2.4% of the articles (n=1), and appeared 0.02 times per article (range: 0-1). During the eating disorder period, the specific number of calories consumed appeared in 26.2% of the articles (n=11), with the average number of times it appeared per article being 0.5 (range: 0-5). After recovery from the eating disorder, the specific number of calories consumed appeared in only 7.1% of the articles (n=3). The average number of times it appeared per article was 0.1 (range: 0-2).

Disordered Behaviours

Ninety-eight percent of the articles mentioned at least one disordered behaviour used by the eating disorder sufferers profiled to control or restrict weight. The number of disordered behaviours mentioned in a single article ranged from 0 – 36. The average number of disordered behaviours mentioned per article was 8.5. The disordered behaviours listed in the articles, the frequency that disordered behaviours were mentioned, and the average number of times these behaviours were mentioned per article are presented in Table 1.

A wide variety of disordered behaviours were discussed, including well-known eating disorder symptoms such as restricting caloric intake, purging through vomiting, and over-exercising, as well as more unusual forms of weight control.

Table 1

Frequency of mentioning disordered behaviours in articles on eating disorders

Disordered Behaviour	% Articles	Range	Mean Per Article	SD
Restricting	85.7	0-9	3.0	2.6
Over-Exercising	54.8	0-7	1.3	1.7
Bingeing	38.1	0-12	1.0	2.1
Vomiting	38.1	0-15	1.3	2.8
Counting Calories	26.2	0-4	0.5	0.9
Laxatives	19.0	0-5	0.4	1.1
Diet Foods	19.0	0-5	0.3	0.9
Diet Pills	16.7	0-2	0.2	0.5
Hiding Food	9.5	0-2	0.1	0.4
Ipecac	4.8	0-2	0.1	0.3
Drugs/Alcohol	4.8	0-1	0.05	0.2
Tube Pulling	4.8	0-1	0.05	0.2
Pro-E.D. Websites	4.8	0-4	0.2	0.9
Enemas	2.4	0-1	0.02	0.2
Non-Foods	2.4	0-1	0.02	0.2
Water-Loading	2.4	0-1	0.02	0.2

Some unusual disordered behaviours described were tube-pulling (removing nasal-gastric feeding tubes while in hospital), water loading (drinking excessive amounts of water to artificially inflate one's weight to deceive health professionals), pro-eating disorder sites (visiting websites that give tips and tricks for developing and practising an eating disorder), ipecac use (consuming a drug designed to induce vomiting), enemas (abusing enemas in a similar manner as laxatives are abused), and non-foods (eating non-nutritive substances in place of food to assuage hunger pains, such as cotton balls sprinkled with salt).

With respect to food restriction and dieting, the majority (n=22, 52.4%) of the articles described the exact "menu" of an eating disordered individual, providing a list of specific foods consumed while in the grip of an eating disorder. For example, one article (Espinoza et al., 2001) contains the following statement: "I would have two egg-whites for breakfast, and lunch was a scooped out bagel and a Diet Coke. Dinner turned into a fat-free yogurt." (p.69). Another statement (Hubbard et al., 1999) appears in a *People Weekly* article about several college-age girls with eating disorders: "...she [a girl suffering from anorexia nervosa] adopted a rigid diet: cereal with skim milk for breakfast, a cereal bar and fruit or pretzels for lunch, and a light supper, often pasta" (p.45). The average number of times per article t[illegible] specific eating disorder menu was mentioned was 1.0 times per article (range: 0 – 6, SD=1.5). Although the majority of articles listed the specific menu used by the eating disordered person, only 14.3% (n=6) mentioned a similarly detailed list of foods consumed while healthy, either prior to or after recovery from an eating disorder.

The average number of times per article that a specific menu of a healthy individual was mentioned was 0.2 times (range: 0-2, SD=0.5).

Just as the articles focused on the meals of the eating disordered individuals, they also focused on exercise plans of individuals during the disordered period. This occurred when the author(s) of an article went beyond just mentioning that an individual over-exercised, and went on to give specific details about daily exercise routines. Thirty-one percent (n=13) of the articles described the specific exercise plan followed by the disordered person. For example, one article (Chin & Breu, 1999) contained the following statement: "Her day began with a 45-minute swim and no breakfast, then a 75-minute gym class at school and a long walk at lunch" (p.29). Another article (Rosen, 2000) stated, "Still, she'd always go for a morning run, then hit the gym in the afternoon, to spend an hour on the treadmill, do 500 sit-ups and lift weights" (p.67). The average number of times per article that a specific eating disordered exercise plan was mentioned was 0.4 times (range: 0 – 3, SD = 0.6). A minority of articles (n=7, 16.7%) provided details about the exercise routines of individuals profiled during periods of health or "recovery". The average number of times per article that a healthy exercise plan was mentioned was 0.2 times (range: 0 – 1, SD = 0.4).

Consequences of Eating Disorders

Physical Consequences

The majority of the articles in this study (n=31, 73.8%) listed at least one negative physical consequence of having an eating disorder (range: 0-37, SD = 7.8). The average number of physical consequences mentioned per article was 5.1.

Although there were a large variety of physical consequences listed across articles, death was the physical consequence mentioned most often (mentioned at least once in 54.8% of the articles, n=23). The number of times death was mentioned per article ranged between 0 and 15 times, and the average number of times death was mentioned per article was 1.3 times (SD=2.6). In a minority of cases (n=3, 4.3%), a profiled individual died. The cause of death was suicide in the case of two individuals (2.9% of the sample). Death occurred as a result of the physical consequences of anorexia nervosa for one individual (0.01% of the sample). Notably, 45.2% of the articles made no mention of the fact that eating disorders can be fatal.

Aside from death, the most commonly mentioned physical consequence, chest pain, was mentioned in only 35.7% of the articles, with most consequences mentioned much less frequently. Many were listed only once, in a single article. The physical consequences listed in the articles and the percentage of articles that mentioned them are presented in Table 2.

As is evident from Table 2, some of the most serious, potentially fatal physical consequences of eating disorders (heart attacks, seizures, brain damage, electrolyte imbalances, and severe dehydration) were mentioned in a fewer percentage of articles than some less severe consequences. Some permanent physical consequences of eating disorders (kidney damage, liver damage, osteoporosis, and ulcers) were also mentioned relatively infrequently.

Psychological Consequences

The various negative psychological consequences of eating disorders, and the frequency that they were mentioned were also examined in this study. The majority

Table 2

Frequency of mentioning physical consequences in articles on eating disorders

Physical Consequences	% Articles	Range	Mean Per Article	SD
Death	54.8	0-15	1.3	2.6
Chest Pain	35.7	0-5	0.5	0.9
Fatigue	28.6	0-3	0.4	0.7
Amenorrhea	23.8	0-3	0.4	0.7
Heart Attack	16.7	0-2	0.2	0.5
Osteoporosis	16.7	0-2	0.2	0.5
Dizziness	14.3	0-1	0.1	0.4
Tooth Damage	11.9	0-2	0.1	0.4
Fainting	11.9	0-2	0.1	0.4
Stomach Pain	11.9	0-1	0.1	0.3
Dehydration	9.5	0-1	0.1	0.3
Kidney Damage	9.5	0-1	0.1	0.3
Low Body Temp.	7.1	0-5	0.2	0.8
Brain Damage	7.1	0-2	0.1	0.4
Exploded Blood Vessels	7.1	0-1	0.07	0.3
Insomnia	7.1	0-1	0.07	0.3
Muscle Wasting	7.1	0-1	0.07	0.3
Ulcers	7.1	0-1	0.07	0.3

Unstable Blood Pressure	7.1	0-1	0.07	0.3
Bone Pain	4.8	0-1	0.05	0.2
Swollen Glands	4.8	0-2	0.07	0.3
Sore Throat	4.8	0-3	0.1	0.5
Intestinal Problems	4.8	0-2	0.07	0.3
Bowel/Intestinal Problems	4.8	0-1	0.05	0.2
Difficulty Breathing	4.8	0-1	0.05	0.2
Esophagus Damage	4.8	0-1	0.5	0.2
Bradycardia	4.8	0-4	0.1	0.7
Liver Damage	4.8	0-1	0.05	0.2
Gum Damage	2.4	0-1	0.02	0.2
Circulation Problems	2.4	0-1	0.2	0.2
Electrolyte Imbalance	2.4	0-1	0.02	0.2
Infertility	2.4	0-2	0.05	0.3
Bloating	2.4	0-1	0.02	0.2
Pneumonia	2.4	0-1	0.02	0.2
Headaches	2.4	0-1	0.02	0.2
Seizures	2.4	0-1	0.02	0.2
Urinary Infections	2.4	0-1	0.02	0.2

of the articles (n=30, 71.4%) mentioned at least one psychological consequence of having an eating disorder, with the number of psychological consequences mentioned per article ranging between 0 and 17. On average, the number of psychological consequences mentioned per article was 2.4. The psychological consequences listed in the articles and the mean number of times they were mentioned per article are presented in Table 3.

Psychological consequences included negative emotional states (depression, anxiety, guilt, self-hate, and shame), as well as self-damaging impulses (suicidal ideation and suicide attempts). Some of the psychological consequences mentioned in the articles may represent direct precursors to, or manifestations of eating disorders (e.g., body dysmorphia, obsession with food, and perfectionism). No one psychological consequence was mentioned especially frequently; the most frequently mentioned psychological consequence (suicidal ideation) was mentioned in less than one third of the articles (28.6%).

Cosmetic Consequences

Negative cosmetic consequences. The articles included in this study occasionally mentioned negative changes in individuals' appearance as a result of having an eating disorder. A minority (40.5%) of the articles listed at least one of the negative cosmetic consequences commonly associated with eating disorders. Negative cosmetic consequences appeared as negative adjectives (e.g., the word "freakish," or "horrible") used to describe the appearance of an eating disorder sufferer. Other negative cosmetic consequences mentioned are the result of the

Table 3

Frequency of mentioning psychological consequences in articles on eating disorders

Psychological Consequences	% Articles	Range	Mean Per Article	SD
Suicidal Ideation	28.6	0-2	0.3	0.5
Depression	21.4	0-3	0.3	0.7
Obsession with Food	21.4	0-3	0.4	0.8
Concentration Problems	16.7	0-3	0.2	0.6
Self Hatred	16.7	0-2	0.3	0.6
Isolation	16.7	0-2	0.2	0.5
Anxiety	11.9	0-5	0.2	0.8
Shame	9.5	0-4	0.1	0.6
Numbness	9.5	0-1	0.09	0.3
Perfectionism	7.1	0-1	0.07	0.3
Body Dysmorphia	4.8	0-1	0.05	0.2
Suicide Attempt	4.8	0-1	0.04	0.2
Guilt	2.4	0-2	0.05	0.3
Unemployment	2.4	0-2	0.05	0.3

physical changes associated with starvation and/or purging (e.g., lanugo, hair loss, yellowing of the skin). An article by France (1999), contained the statement, "Nevertheless, she is slighter today than she has ever been, and looks decades older than her age, which is only 32" (p.213). This was coded as one negative cosmetic consequence, as it implied that an eating disorder caused negative changes to the appearance through premature aging. The number of negative cosmetic consequences listed ranged from 0 to 20. The average number of negative consequences listed per article was 1.3 (SD= 3.3).

Positive cosmetic consequences. Articles were also examined as to whether they mentioned positive cosmetic consequences of eating disorders. A positive cosmetic consequence of an eating disorder is any mention of a more attractive physical appearance as the result of an eating disorder. Thirty one percent of the articles listed at least one positive cosmetic consequence of an eating disorder. For example, one article (Rosen, 2000) states, "Compounding the problem, most members only talk to skinny women at the gym to compliment her or ask for workout tips. Says Susan [an anorexic women with an exercise addiction], 'Some women would say they wished they had my arms or my stomach'" (p. 68). Another article (Espinoza, 2001) contains the statement, "They would say [to a woman in the process of losing weight through restricting and purging by vomiting], 'We want you to be healthy,' then, in the same breath, 'Oh my God, you look so beautiful, so chiselled'" (p.106). These statements received a coding of one for positive cosmetic consequences. The number of positive cosmetic consequences ranged between 0 and 3, and on average, appeared 0.4 times per article (SD=0.7).

Depiction of the Recovery Process

Of the 79 individuals profiled across the articles included in this study, 82.6% (n=57) were identified as currently being in recovery from their eating disorders. Of the individuals who did not achieve recovery, 27.5% (n=19) continued to suffer from an eating disorder and 4.3% (n=3) died from either suicide or physical complications of the eating disorder.

Length of Recovery and Treatment

Years of recovery was defined as the number of years it takes the individual to recover, once treatment is initiated. Only the individuals who had achieved recovery were included in this calculation. As well, some individuals clearly achieved recovery, but due to lack of dates or a time frame, it was impossible to calculate Years of Recovery. Out of the 79 individuals profiled, it was possible to determine Years of Recovery for 38 individuals. Of these, the average length of recovery was 2.9 years (range: 0.3 to 20 years, SD=3.7).

Various treatments utilized by individuals profiled in the articles were examined. Several articles mentioned the same type of treatment numerous times. This occurred particularly in the case of hospitalizations, with articles indicating that individuals were hospitalized many separate times (ranging from 0 to 21 hospitalizations). The majority of the articles (95.2%) mentioned at least one type of treatment, with the number of mentions of treatment per article ranging from 0 to 27. On average, some form of treatment was mentioned 5.5 times per article (SD=6.5). The various treatments listed in the articles, the percentage of articles that mention

them, and the mean number of times they were mentioned per article are displayed in Table 4.

The most frequently mentioned treatments were psychotherapy, hospitalization and residential treatment. Overall, the types of treatments mentioned are varied. Counselling from nutritionists/dieticians was mentioned in less than a quarter of the articles. The least frequently mentioned treatments were family therapy and alternative treatments. Alternative treatments mentioned included a wilderness camp, and "fashion therapy," a controversial form of intervention used in France.

Tests of Study Hypotheses

This study aimed to test two hypotheses about popular magazine articles discussing the topic of eating disorders. The first hypothesis was that the articles would focus on individuals suffering from anorexia nervosa due to the consistency of their body sizes with the thin beauty ideal projected in the magazines. Individuals with bulimia, who are typically of normal weight, were hypothesized to be less frequently portrayed in articles.

A Chi-Square One Way Classification test was used to assess whether articles disproportionately focus on one disorder or the other, or pay equal attention to both anorexia nervosa and bulimia. Articles which focused on both conditions were not included in the analysis due to the assumption of independence of observations in Chi-Square. The results of the Chi-Square test were significant, showing a disproportionate number of articles focus on anorexia nervosa, X^2 (1, N=29) = 18.24,

Table 4

Frequency of mentioning specific treatment types in articles on eating disorders.

Treatment	% Articles	Range	Mean Per Article	SD
Psychotherapy	64.3	0-5	1.0	1.1
Hospitalization	47.6	0-21	1.8	4.1
Residential Treatment	45.2	0-8	0.8	1.4
Physician	31.0	0-3	0.4	0.7
Day Treatment	23.8	0-2	0.3	0.5
Medication	21.4	0-1	0.2	0.4
Nutritionist/Dietician	21.4	0-2	0.3	0.6
Group Therapy	14.3	0-4	0.3	0.8
Family Therapy	11.9	0-3	0.2	0.7
Alternative Treatment	11.9	0-1	0.1	0.3

$p<.01$. A second Chi-Square one way classification test was performed to compare the number of individuals profiled who suffered from anorexia nervosa versus those individuals profiled who suffered from bulimia. Individuals who were reported to suffer from both anorexia nervosa and bulimia were not included in the analysis, due to the assumption of independence of observations in Chi-Square. The results of this second Chi-Square test were also significant, showing a disproportionate number of individuals with anorexia nervosa being profiled, compared to the number of individuals with bulimia, X^2 (1, N=66) = 44.18, $p<.01$.

The second hypothesis of the study was that the popular magazine articles would focus on the disordered behaviours used to achieve or maintain weight loss, rather than on the physical health risks associated with these behaviours. A Paired Samples T-Test was conducted to compare the number of times disordered behaviours were mentioned in each article, and the number of times the health impacts of eating disorders were mentioned. The Paired Samples T-Test was statistically significant, indicating that disordered behaviours are mentioned significantly more often than physical consequences of eating disorders, $t(41) = 3.55$, $p<.01$.

Overall, the results of this study indicate that some aspects of popular magazine presentations of eating disorders are of questionable accuracy. It is also necessary to explore the potential impact of the article focus and content on impressionable readers. In the following chapter, the content and focus of popular magazine articles on eating disorders will be compared with the scientific research findings on anorexia nervosa and bulimia. The effects of popular magazine coverage

of eating disorders on magazine audiences will be discussed, and recommendations for improving public education efforts will be presented.

CHAPTER V

DISCUSSION

In this chapter, the findings of this study will be discussed, and examined in light of existing research. Based on the results of the study, recommendations for improving public education efforts will be presented. The chapter will conclude with a discussion of the limitations of the study, and suggestions for future research.

Magazine Focus on Low Weight Individuals

Overall, the results of this study indicate that popular magazines tend to focus on the unusually thin sufferers of eating disorders. This emphasis on underweight suffers is evident in the magazine's preferential focus on anorexia nervosa compared to bulimia, and in their tendency to provide weight information for people during the most disordered period, rather than prior to the development of the eating disorder, or in periods of recovery.

Over half of the articles (61.9%) focused on anorexia nervosa, and over three quarters of the individuals profiled suffered from anorexia nervosa (75.9%). Only 7.6% of the individuals profiled suffered exclusively from bulimia. These findings are noteworthy, in light of the fact that bulimia is far more prevalent than anorexia nervosa. In fact, studies indicate that bulimia is up to three times more common than anorexia nervosa (Hoek, 2002). Therefore popular magazines choose to focus the most attention on a relatively rare eating disorder, anorexia nervosa, and spend relatively little space discussing the more common problem of bulimia. Since individuals with anorexia nervosa are, by definition, underweight, this indicates that the majority of the individuals with eating disorders profiled in magazines are of an

abnormally low weight, and are representative of only a small subset of the population of eating disordered individuals.

Whether discussing anorexia nervosa or bulimia, the articles tended to focus the particularly low weights achieved by the individuals profiled. The vast majority of articles (92.9%) mentioned a specific weight at least once, and in 88.1% of the cases, the articles mentioned the individual's weight during the most severe period of his/her eating disorder. The frequent discussion of weights is relevant, due to the fact that anorexic women have reported that they are especially interested in articles that reveal the weight of the models in the photographs. One anorexic woman (Thomsen et al., 2001) reports, "If there was an article about gymnasts or models, I would always look and try to find out how much they weighed," (p.55). Thomsen et al. (2001) goes on to comment, "The goal... was always to weigh less, even if the article was about other anorexic women" (p.55). This interview study indicated that, for some anorexic women, learning the weights of others may encourage competition, by perpetuating the women's deep dissatisfaction with their own body image.

In her study of the writings of individuals with anorexia nervosa, Hardin (2003) discusses the media attention to eating disorders, commenting, "These discourses have the effect of positioning young women in ways such that they end up comparing their status to that of the published standard, which are often case studies from the severely emaciated end of the self-starving continuum" (p.214). That is, Hardin argues that when the media focuses exclusively on the severely emaciated eating disorder patients, some anorexic women compare themselves unfavourably to this "published standard."

The majority of articles (67.1%) contained the information necessary to calculate the individuals' BMI during the most disordered period described. Less than half of the articles contained information necessary to calculate BMI for an individual prior to, or after recovery from, an eating disorder (34.2% and 31.4%, respectively). This focus on specific weights and heights indicates that the weight of eating disorder victims (especially during the most disordered period) is given significant emphasis when detailing their stories in popular magazines. Other indications of low weight are also focused on in some articles, with 23.8% of articles mentioning an individual's clothing size in his or her most disordered period.

Evidence also indicates that the weights of the eating disorder sufferers profiled in popular magazines both prior to the development of the eating disorder, during the disordered period, and after recovery do not conform to factual information about weight trends among eating disorder patients. This was determined by examining the BMI of the individuals. The average BMI of individuals profiled in magazines before the development of an eating disorder was 21.1. Only one individual had a BMI classified as overweight before the onset of her eating disorder. This runs contrary to research that indicates some individuals with eating disorders are overweight or obese, prior to the onset of their illness (Garner, Vitousek & Pike, 1997). Maxmen and Ward (1995) report that prior to the development of bulimia, 56% of patients are overweight.

When in an eating-disordered period, the body mass of individuals profiled in popular magazines is lower than that of eating disordered individuals described in clinical research. The average BMI of an individual during illness in this content

analysis was 15.2. This is lower than the average overall BMI that Garner, Olmstead and Polivy (1983) found for women with anorexia, which was 17.5. The same researchers found an average BMI of 21.3 for individuals with bulimia, which is higher than the average BMI of 19.5 for bulimic women in the popular magazine articles. None of the individuals profiled in popular magazines were classified as overweight during the period of suffering from bulimia. This indicates a selective focus, since research indicates that individuals with bulimia are "rarely skinny," and 5% are overweight during the height of their illness (Maxmen & Ward, 1995). These findings indicate that the popular magazines are focusing on eating disorder victims who have lower body mass compared to eating disordered individuals participating in clinical research.

The average BMI after recovery from the eating disorder was 20.0 as reported by the popular magazine articles. Both this after-recovery BMI and the pre-disordered BMI (21.1), while falling within the bottom end of the normal weight range (WHO, 1995) are still lower than the average BMI for a North American woman, which is 24.0 (Anorexia Nervosa and Related Eating Disorders, Inc., 2002). As well, clinicians (Garner, Vitousek & Pike, 1997) who ascribe to the set-point theory of weight have found that some individuals are healthiest with recovery BMIs of above 25. These individuals, healthiest when slightly overweight according to the BMI formula, were entirely absent from the popular magazine literature on eating disorders.

It is important to note that a significant number of articles (27.3%) listed a "recovery" BMI of 17.6 or less. As a BMI of 17.5 or less is indicative of anorexia

nervosa (*DSM-IV-TR*, 2000), it is clear that the magazines may attribute a "recovery" state to individuals who are still clinically underweight. As well, two individuals identified as "bulimic" by the magazine articles met the *DSM-IV-TR* (2000) criteria for anorexia nervosa, binge-purge subtype, indicating a misunderstanding of the criteria of eating disorders by the journalists writing the articles.

The emphasis on underweight eating disorder sufferers in the popular magazines could be compared to the manner in which magazines choose to focus on underweight models in their general articles and advertisements, to the exclusion of normal and over-weight models (Boyd and Fouts, 1999, as cited in Vaughan & Fouts, 2003). It is logical that, when the majority of the models in the magazines are underweight, the magazine editors prefer to focus on extremely thin suffers of eating disorders. It may be that the editors seek to profile individuals who are of significantly lower weight than the other models in the magazines, in order to avoid accusations of using eating disordered models. It may also be that the magazines prefer to focus on low weight sufferers of eating disorders, with the view that these cases are the most dramatic, and therefore most interesting.

Preliminary interviews with anorexic patients (Williams et al., 2003) indicate that the patients view the models in the magazines and the profiled eating disorder sufferers as looking "exactly the same" (p.58). It may be confusing to readers for a magazine to describe the dangers of an eating disorder, when the publication is full of glamorous photos of other underweight women who are not labelled as ill. Attempts to warn readers about the dangers of eating disorders such as anorexia nervosa may be viewed as hypocritical, since the magazines show a clear preference for women

with extremely thin body types. The danger of glamourizing clinically underweight models/actresses has been recognized by researchers (Field et al., 1999). These researchers have called for the glamourizing of excessive thinness to stop, stating: "The media should be discouraged from using actresses and models who would be considered severely underweight by the medical community" (p.1188).

A selective focus on low-weight sufferers of eating disorders may lead readers to erroneously conclude that an individual who is overweight cannot have an eating disorder, and, conversely, that a person who suffers from an eating disorder will never be overweight. This may make overweight or normal-weight sufferers of eating disorders feel ashamed and reluctant to seek help. In addition, the myth that all eating disorder victims are of unusually low weights may confuse friends and family members of individuals with disordered behaviours as to whether their loved one's eating difficulties are clinically significant, or require treatment.

Furthermore, in the context of a society that values a thin appearance, the association of eating disorders (both anorexia nervosa and bulimia) with extreme weight loss may increase the diseases' appeal among readers. Overall, popular magazines list an average weight loss of 36.3 lb. by individuals with eating disorders, and 50.6% of articles contained a specific number of pounds or kilograms lost. By listing large amounts of weight lost, these articles may inadvertently be emphasizing the idea that eating disorders offer effective methods of weight loss. This type of article presentation can explain the finding of Schulze and Gray (1990) indicating that college aged females exposed to a popular magazine article on bulimia rated the

bulimic patient to be more successful and in control than those who read a textbook description of bulimia.

Revealing the "Tricks of the Trade"

The popular magazine articles on eating disorders examined in this study provided many graphic, specific details about the disordered behaviours that anorexic and bulimic individuals engage in. This is consistent with the theme identified by Bishop (2001) in his narrative analysis of articles on eating disorders in women's magazines. Ninety-eight percent of the articles mentioned at least one disordered behaviour used by the profiled individual to lose weight, and the average number of times these disordered behaviours were mentioned per article was 8.5. Well-known methods of obtaining weight loss were described (i.e., restricting caloric intake, purging through vomiting, over-exercising). Many articles also described less common methods of weight loss, and avoidance of weight gain, such as pulling out feeding tubes, abusing enemas, satisfying the appetite with excessive diet foods and/or non foods (i.e., cotton balls sprinkled with salt), and visiting pro-eating disorder websites to learn tips for weight loss.

Although presumably provided to emphasize the extent of the profiled individual's illness, some of these methods may be new to readers. A study by Habermas (1992) indicated that many bulimic women first got the idea of self-induced vomiting when they encountered it in a popular magazine story. This research may indicate that describing techniques such as using excessive amounts of diet cola to suppress appetite, or using the drug Ipecac to promote vomiting may inspire vulnerable readers to try these extreme weight loss techniques. Readers may

be more likely to copy disordered behaviours if they believe that the behaviours will lead to significant weight loss, and the current study has demonstrated that popular magazines repeatedly emphasize the extremely low weights of eating disorder sufferers, and the large amounts of weight lost during illness. Bandura (1963) found that imitation of novel behaviour was most likely when that behaviour was rewarded. Unfortunately, novel behaviours such as abusing enemas or eating non-nutritive substances may be imitated if readers consider the reward (significant weight loss) desirable.

Many articles (31.0% of the sample) list the specific number of calories consumed by an individual with an eating disorder. A typical statement would be, "Most of the time, Jenny had about 500 calories a day." Most often, this specific number of calories represents the food intake of an individual during their most disordered period. Although listing a low caloric intake is a dramatic detail that may be of interest to readers, there is potential for abuse of this information. For a nutritional "novice," it introduces the idea of calorie counting, and may induce a reader to start investigating how many calories he/she consumes in a day. Secondly, to a more "veteran" dieter, mentioning a specific number of calories consumed allows a direct comparison of one's energy intake with the individual profiled in the article. For example, a reader who is aware of the number of calories she consumes in a day can calculate exactly how much more or little she is eating than the individual profiled in the magazine article, promoting unhealthy competition.

Other easily copied information in the articles includes the specific menus and specific exercise plans of eating disordered individuals. Over half of the articles

(52.4% of sample) describe the exact menu of an eating disordered individual, detailing what the person would eat for breakfast, lunch and supper. Only 14.3% of the articles gave a similarly detailed menu of a recovered or healthy individual. Specific, daily exercise routines were also emphasized. Thirty-one percent of articles described the exercise routine of a disordered individual, including details such as amount of time spent exercising, types of activity performed, and number of repetitions of each action. Again, fewer articles (16.7%) provide a description of a healthy exercise plan. By giving the reader specific information about the diet and exercise of an eating disordered individual, the articles may be unintentionally providing a "how to" manual for extreme weight loss. The reader can learn how to imitate a disordered lifestyle if he or she were motivated to do so with a goal of losing weight. That is, in many popular magazine articles on eating disorders, an impressionable reader is being given the exact set of foods eaten and the specific exercise routine followed by an individual who has lost a great deal of weight, making imitation a realistic possibility for some individuals.

Williams et al. (2003) and Thomsen et al. (2002) found that anorexic women tend to specifically seek out new weight loss strategies in popular magazines, to assist them in achieving their increasingly dangerous weight goals. These researchers also found that these patients tend to utilize descriptions of other eating disordered individuals' quest for thinness to rationalize and normalize their own behaviours. Bishop (2001) argued that women's magazine articles tend to imply that an eating disorder is a "typical" or normal part of the adolescent quest for beauty. In this way,

the focus of magazine articles may serve to justify disordered eating in the minds of anorexic and bulimic individuals.

Readers who would like to learn how to eat and exercise in a healthy, balanced manner are usually forced to turn elsewhere for this information. Popular magazine articles on eating disorders include many details about how to eat in an unhealthy and restricted manner, and how to exercise excessively, but typically contain few details on healthy and moderate alternatives. If readers with some early symptoms of eating disorders seek out the articles to learn how to become healthy, they will find very little information about balanced diet and exercise plans in the popular articles profiling individuals with anorexia nervosa and bulimia. Also, given the tendency of anorexic and bulimic patients to compare themselves unfavourably with others (Murray, 2002), they may misinterpret their own food intake as overly indulgent, when faced with the reported deprivation of another. Similarly, they may misjudge their own exercise routines as indolent, compared to the publicized standard. For these reasons, Hardin (2003) argued that popular magazine articles may become advertisements for unhealthy eating practices.

Minimizing Risk

This study tracked how often popular magazine articles on eating disorders described risks associated with the conditions, such as physical consequences, psychological consequences, and negative cosmetic consequences. In many cases, these consequences were mentioned relatively infrequently, compared to other information provided.

The findings of this study indicated that disordered behaviours are mentioned significantly more often than the physical consequences of eating disorders. The most frequently mentioned physical health consequence was chance of death, appearing in 54.8% of the articles. Considering that over 90% of the articles mentioned an individual's weight and over 97% mention at least one disordered behaviour, it is significant that scarcely over half of the articles mention that eating disorders are potentially fatal conditions. Very few articles (4.3%) chose to profile a person whose eating disorder had a fatal outcome. In fact, eating disorders have one of the highest mortality rates of any of the psychiatric illnesses (Neumaerker, 2000). Both anorexia nervosa and bulimia are associated with multiple physical complications, including malnutrition, brain damage, electrolyte imbalance and cardiac arrest (Neumaerker; Sullivan, 2002).

The focus of the articles does not appear to be on emphasizing the physical dangers associated with eating disorders. Aside from death, the remainder of the physical consequences discussed were each mentioned in less than half the articles. As well, the three physical consequences most often mentioned apart from death (chest pain, fatigue, and amenorrhea) are relatively minor and do not directly correspond to the most common medical problems and causes of death of anorexic and bulimic patients. More serious health risks (heart attack, brain damage, electrolyte imbalances) were mentioned in less than 17% of articles. In reality, physical deterioration is an expected feature of both anorexia nervosa and bulimia, with patients experiencing problems such as osteoporosis, cardiovascular problems, endocrine imbalances, amenorrhea, fertility problems, gastrointestinal difficulties,

decreased brain mass, metabolic changes, fluid abnormalities, electrolyte imbalances, and dental complications (Leonard & Mehler, 2001; Maxmen & Ward, 1995; Mitchell, Specker, & de Zwaan, 1991).

The psychological consequences of eating disorders were also mentioned relatively infrequently. The most frequently mentioned psychological consequence, suicidal ideation, was mentioned in less than a third of the articles (28.6%). According to research on the mortality rates of anorexia nervosa, suicide is the most common cause of death, besides physical deterioration (Neumaerker, 2000). Depression and obsession with food were each mentioned in 21.4% of the articles, with the remainder of the psychological consequences (i.e., self-hatred, isolation, anxiety, perfectionism) mentioned in less than 17% of the articles. The lack of attention to these psychological states suggests that these articles do not usually focus on the mental suffering of an individual with anorexia nervosa or bulimia. The limited information about the negative psychological states of eating disorder sufferers does not accurately portray the high comorbidity of eating disorders and mood/anxiety disorders that complicates the treatment process in many cases (*DSM-IV-TR*, 2000).

Another risk of contracting an eating disorder involves negative cosmetic consequences. These are negative changes in an individual's appearance as a result of having anorexia nervosa or bulimia, such as hair loss, extra hair growth on the body (lanugo), yellowing skin, eroded teeth, and premature ageing (*DSM-IV-TR*, 2000). Less than half of the articles (40.5%) mention one or more negative cosmetic consequence of an eating disorder. On the whole, popular magazines appear to

minimize negative cosmetic consequences. Indeed, many of the individuals with eating disorders profiled are actresses and models, who are widely considered to be among the most beautiful members of society. The infrequent mention of negative physical, psychological and cosmetic consequences of eating disorders in this study is consistent with Bishop's (2001) assertion that magazine articles imply that these conditions have no long-standing adverse impact on their sufferers.

Eating Disorders: Deadly or Desirable?

Schulze and Gray (1990) exposed female college students to either a textbook or popular magazine description of bulimia. Those exposed to the popular magazine descriptions viewed individuals with bulimia as more attractive, intelligent, successful, well-adjusted, friendly and in-control compared to women exposed to the textbook descriptions. The women exposed to the popular magazine descriptions also found bulimia to be more "glamorous." The following section evaluates and discusses whether the content of popular magazine articles on eating disorders could serve to be glamourizing the condition.

There is some question as to whether the media has associated eating disorders with desirable symbols, such as glamour and achievement (Schulze and Gray, 1990). This may be partially due to the frequent pairing of eating disorders with celebrities. In this study, 31.0% of the articles focused on celebrities with eating disorders. The celebrities were highly idealized and high achieving members of society, and included a princess, an Olympic medal winning swimmer, a model and a movie actress. Readers who admire celebrities and wish to copy them may find eating disorders attractive when they are associated with these rich, beautiful and

idolized figures. Schulze and Gray (1990) note that in popular magazines, "rarely is an individual with bulimia nervosa presented as being obese, unattractive or unsuccessful" (p. 83). It is significant that most celebrities with eating disorders are gainfully employed, which may falsely convey to the reader that anorexia nervosa or bulimia will not lead to unemployment or missed opportunities.

When "ordinary" non-celebrity individuals are profiled, this too may serve to glamorize these individuals. Simply by including them in a fashion or beauty magazine may serve to emphasize that individuals with eating disorders are important, and deserving of admiration or attention. Realistically, there are few reasons for an "ordinary" individual to be profiled in a beauty or fashion magazine, but contracting an eating disorder appears to be a relatively common reason to appear in such a publication. As well, many of the photos accompanying the magazine articles give the profiled individuals the benefit of professional photography, and result in an attractive appearance, further glamorizing the individual.

The focus on anorexia nervosa and relatively lack of attention to bulimia may also unnecessarily glamorize eating disorders. Bulimia is a condition which involves many rituals that may cause disgust in readers. Behaviours which may be seen as undesirable include gorging on large amounts of food, inducing vomiting, and misuse of laxatives (*DSM-IV-TR*, 2000). Magazines may focus on anorexia nervosa to the exclusion of bulimia, because anorexia nervosa is viewed to be the more palatable or "appealing" disease. This focus ignores the reality that many individuals develop bulimia as a direct result of the previous development of anorexia nervosa. Within the first five years of onset of the restricting type of anorexia nervosa, a significant

fraction of individuals develop binge eating and may warrant a change in diagnosis to bulimia (*DSM-IV-TR*, 2000). That is, prolonged starvation often does not lead to sustained weight loss, but rather, produces an uncontrollable biological need to binge that may lead to the destructive cycle of bulimia.

As well, the current study found that a significant number of the articles (31.0%) mention at least one positive cosmetic consequence of having an eating disorder. A positive cosmetic consequence is any mention of an attractive physical appearance as the direct result of an eating disorder. For example, one woman with anorexia nervosa was quoted commenting that she often received admiring comments about the appearance of her arms and stomach from other women at the gym. Another individual was told she looked "beautiful" and "chiselled" when she was underweight. The inclusion of these comments emphasizes the positive feedback that exacerbates eating disordered behaviours in individuals. Thomsen et al. (2002) found that women with eating disorders interpreted these types of information in magazines as convincing them that they were doing the right thing by pursuing extreme weight loss. Unfortunately, including such information in popular magazine articles on eating disorders may further serve to glamorize the disorders, and send the message to readers that they can expect to receive compliments if they achieve extreme weight loss.

Recovery: The Happy Ending?

Of the 79 individuals profiled by popular magazines in this study, 82.6% were identified as currently being in recovery from their anorexia nervosa and/or bulimia. As noted previously, six of these individuals still had a BMI of 17.6 or less, and

therefore are considered ill by the standards of the *DSM-IV-TR* (2000), despite the magazine articles' assertions of recovery. Classifying clinically underweight individuals as "recovered" may reflect the ignorance of the articles' authors who are unaware of what a healthy body weight is. This may also reflect the desire to present a triumphant scenario for readers in which the profiled individual has successfully "beaten" anorexia nervosa or bulimia, with little artistic motivation to tell a more realistic story.

Portraying individuals as "recovered" when they are still dangerously underweight is irresponsible. This information serves to mislead readers about what a healthy body weight is, incorrectly implying that an individual can recover from an eating disorder while remaining medically underweight. Healthy individuals may then be motivated to achieve a weight goal that is at this low weight, or even lower, and falsely believe that their goal is healthy. As well, individuals with eating disorders who seek out these articles may falsely conclude that they are at a healthy weight when, in fact, they are significantly below the recommended BMI of 20.0.

The clinical literature indicates that only 44% of individuals with anorexia nervosa recover completely (Maxment & Ward, 1995). Among individuals with bulimia, the recovery rate is higher, around 70% (Maxment & Ward, 1995). Both these recovery rates are well below the average rates of recovery of individuals profiled in popular magazines (82.6%). The magazines' collective portrayal of such a high recovery rate may be especially misleading in light of the fact that they are generally profiling individuals of unusually low body weight. Extremely low weight

in eating disorder sufferers is an indicator of a poor prognosis (Maxmen & Ward, 1995).

Reading numerous articles about successful recovery from an eating disorder may be another factor that convinces readers that the conditions are easily cured (Bishop, 2001). The impact of this information may vary, depending on the audience. For an individual who does not have an eating disorder, this information may fail to provide an accurate warning about the long-standing, intractable nature of anorexia nervosa and bulimia. The lack of negative information about eating disorders may make the disorders more likely to be imitated. For an individual who is currently suffering from an eating disorder, these recovery stories could provide some much-needed hope. Realistically, however, the majority of readers represent the first condition: university-aged females without eating disorders (Morry & Staska, 2001). Therefore, the potential negative impact of portraying eating disorders as easily cured may outweigh any potential positive impact.

The average length of recovery as portrayed in the magazine articles was 2.9 years. Research indicates that this length of recovery is accurate, and somewhat consistent with clinical evidence. Maxmen and Ward (1995) state,

> Nutritionally, patients usually recover in two to three years, but even then about half continue to have menstrual problems, sexual and social maladjustment, massive weight fluctuations, or disturbed appetite, while two-thirds continue to fret over their weight and body image (p.334-335).

Therefore, popular magazines are fairly accurate in their depiction of the length of time it takes to recover from an eating disorder, although they may not fully account for the continuing difficulties that many individuals with eating disorders experience.

It appears that popular magazine articles on eating disorders consider type of treatment utilized a significant detail, with the vast majority of the articles (95.2%) mentioning at least one type of treatment. A variety of types of treatment are discussed, with the most common ones being psychotherapy, hospitalization and residential treatment in a specialized eating disorder treatment centre. The articles tend to mention treatment by a dietician or nutritionist relatively infrequently (in less than one quarter of the articles). Research (Beumont et al., 1997) indicates that dieticians are a key member of the treatment team, with specialized knowledge which can help reverse the disturbance of nutrition in individuals with eating disorders. However, the popular magazine articles do frequently mention hospitalisation and residential treatment. Both these intensive forms of treatment may involve work with a dietician. Overall, the frequent mention of formalized treatment for eating disorders indicates that popular magazine articles portray professional treatment as a key factor in recovery. Since anorexic and bulimic individuals have been found to selectively attend to magazine article content (Habermas, 1992; Thomsen et al., 2001), the overemphasis of popular magazine articles on disordered behaviours may draw the readers' attention away from various treatment options.

Improving Public Education Efforts of Popular Magazines

There may be actions that popular magazines can take to make their articles more accurate and less glamorous, to decrease the chance of imitation of the

disordered behaviours by readers. In their study comparing popular and textbook presentations of bulimia, Schulze and Gray (1990) found, "Reading a textbook article on bulimia nervosa appears to take away some of the glamour of the disorder" (p. 87). The authors go on to note,

> A factual textbook presentation on bulimia nervosa can be effective in swaying attitudes toward the disorder in a negative direction. This conclusion is especially convincing since, in this study, women's attitudes were significantly changed after reading just one article (p. 87).

This preliminary evidence indicates that it may be desirable to change magazines' depiction of eating disorders to make them more similar to a textbook depiction.

An article that discusses the topic of eating disorders in a non-glamorous and realistic fashion may contain an emphasis on information such as negative physical, psychological and cosmetic consequences of eating disorders. The relatively low chances of recovery from anorexia nervosa, and the less-than-100% recovery rates of individuals with bulimia may also be discussed. Individuals with eating disorders who do not fit the ideal body type (i.e., obese individuals) should be profiled. As well, magazines should discuss co-morbid mental disorders, and limitations that the disorders cause, such as unemployment.

Information which should not be discussed may include excessive mention of weight loss (with focus on unusually low weights), over-representation of underweight eating disorder sufferers, with a corresponding under-representation of overweight and obese sufferers, and an over-emphasis on anorexia nervosa and lack of emphasis on the more common problem of bulimia. Association of eating

disorders with celebrities should be avoided, when possible. There appears little benefit to describing numerous disordered techniques (i.e., abusing ipecac, eating diet foods excessively), along with the specific caloric intake, exercise plans, and meal plans of disordered individuals. As well, it may be helpful to avoid the mention of positive cosmetic consequences associated with eating disorders. The suggestions put forward here may also assist in improving other forms of public education, such as through on-line mediums or workshops about eating disorders.

Should popular magazines be attempting to educate readers about eating disorders in the first place? Although many beauty/fashion magazines appear to consider eating disorders acceptable topics to cover, there is a chance that any attention they give to the conditions may do more harm than good, no matter what form that information takes.

Mann et al. (1997) found that formal programs designed to prevent eating disorders in college-aged women were largely unsuccessful. The researchers attributed the failure of the programs to the fact that they were unable to selectively target the students. That is, students who did not currently have eating disorders require one type of intervention, while students with sub-clinical levels of anorexia nervosa or bulimia require different intervention. Specifically, those without eating disorders needed to be "scared off" from the conditions, by emphasizing their pathological, intractable and frightening nature. In contrast, individuals with the beginning stages of eating disorders need assurance that eating disorders are part of the normal continuum of dieting behaviour, and are easily treated, in order to reduce stigma and encourage them to seek out help. When educators are unable to

selectively focus their messages, both groups (those at risk for eating disorders, and those with the beginning stages of eating disorders) may suffer. It may be that when popular magazines attempt to educate their readers on eating disorders, they are encountering a similar difficulty. That is, the magazines are unable to selectively target readers, and may therefore be providing information that is unhelpful, or even harmful, to both groups of readers.

Stice and Shaw (2004) differentiate between first, second and third generations of eating disorder prevention strategies. Evidence from this content analysis indicates that popular magazine presentations of eating disorders have the characteristics of first generation prevention. The magazine articles deliver didactic psychoeducational material about eating disorders aimed at all available readers. These first generation efforts at eating disorder prevention are known to be unsuccessful (Stice & Shaw, 2004). The assumption behind this type of intervention (that individuals will be scared away from eating disorders by learning about them) has been found to be inaccurate (Mann et al. 1997). The current emphasis in eating disorder prevention (third generation) involves selective programs, aimed at high-risk individuals, involving interactive exercises. Magazine articles are unable to selectively focus their articles, and are not interactive in nature.

Furthermore, magazines have a vested interest in promoting an idealized female body, in order to promote consumption of beauty and dieting products. Thomsen et al., (2001) points out that one of the goals of the beauty/fashion magazine industry is to promote an atmosphere of consumption:

> in which the answer to all one's problems can be found by changing one's physical appearance by purchasing the products that appear in women's magazines. By creating and then exacerbating insecurities about one's body and one's self in order to sell products, beauty and fashion magazines teach readers at an early age to look critically at their bodies and be ashamed of the parts that do not fit the established model (p. 51).

That is, the popular magazine industry has no intrinsic motivation to make individuals more comfortable with their bodies, and, in fact, has a vested interested in promoting body dissatisfaction in order to sell more beauty products. Women who encounter articles on eating disorders in popular magazines are confronted by numerous thin models, and ads for diet products in the same publications. Bishop (2001) points out, "If eating disorder clinics took out as many ads as food companies and diet product makers, the narrative might take a different direction." (p. 237). Women are confronted with numerous pro-dieting messages in popular magazines, and very few messages about obtaining a healthy body image and eating sensibly. This fact may render any attempt by popular magazines to warn against eating disorders to be viewed by readers as hypocritical and ineffective. Readers may even view the articles as containing covert messages about techniques that they may use to reduce body mass and meet the magazine's thin ideal.

If popular magazines truly want to promote a healthy body image, it is questionable whether they can do so by focusing on the stories of victims of eating disorders. Actions such as using models of a healthy weight, representing individuals of all sizes and shapes, and eliminating ads for diet products would likely have a

greater impact than an occasional article cautioning readers about the dangers of anorexia nervosa and bulimia.

Limitations of the Study

This study focused on the content of popular magazine articles on eating disorders. One limitation of the study is that individuals who frequently read popular magazines were not presented with the articles to gauge their true reactions. However, the information contained within the articles was compared to factual information about eating disorders and the potential impact on readers was evaluated based on the findings of previous studies that have exposed readers to magazine articles. Comparisons yielded a number of factual inaccuracies in the magazine articles' portrayals of eating disorders, as well as a selective emphasis on information that may lead to experimentation with disordered behaviours.

Another limitation of this study is that the researcher was the only person who coded the content of the magazine articles. Since the information tracked was objective and factual in nature, such as mention of death, BMI, mention of exercise, mention of weight, etc., it is highly unlikely that multiple coders would have reached different conclusions about article content. Subjective judgements about whether the profiled individuals appeared attractive or underweight, or about whether their eating patterns were healthy or unhealthy were not solicited. Instead, the researcher directly tracked specific details documented within the articles.

A third limitation of this study is that the researcher established a criterion that the articles examined were to be a minimum length of 500 words. With this article length, many omissions in essential information about eating disorders were noted.

This suggests that including shorter pieces on eating disorders might have yielded an even more distorted picture of popular magazine presentations on anorexia nervosa and bulimia. On the other hand, shorter pieces may be more likely to focus on the most important information about the health of eating disorder patients without the distracting details about the specific disordered behaviours used. It is unknown at this point how the inclusion of shorter pieces would have affected the results of this study.

Suggestions for Future Research

Future researchers may wish to expose groups of readers to various depictions of eating disorders, in order to isolate what types of information may lead readers to view the diseases as less glamourous, more pathological, and unattractive. For example, a current popular magazine article could be modified to produce several versions of the articles that contain different details (e.g., one article listing more disordered behaviours and low weights, with another article listing more negative physical and psychological consequences). The reactions of groups to these differing articles could then be compared, by using a rating scale of desirability, intractability and adjustment-level of the eating disordered patients, similar to the one used by Schulze and Gray (1990).

Another study could involve surveying current sufferers of eating disorders, to determine whether they believe that popular magazine articles on eating disorders have had any effect on the etiology or course of their illness. That is, individuals with anorexia nervosa or bulimia could be given the opportunity to discuss whether popular magazine articles on eating disorders are helpful or harmful, in their personal experience. This could be done in survey or interview format, and would

complement existing studies, by explicitly giving eating disordered individuals the opportunity to situate magazine articles on eating disorders in their experience of illness.

Future researchers may also wish to examine the content of other media, such as television specials on eating disorders, pro-recovery websites on eating disorders, and non-fiction and fictional books on eating disorders. These various forms of media could be examined to determine to what extent they focus on helpful information versus harmful information. Identifying the information contained within various forms of eating disorder education is the first step in redirecting these efforts to minimize adverse impacts on readers.

Summary

This study aimed to understand how popular magazines present eating disorders to the general public. The study served to determine what types of information the articles focus on, and the degree to which they choose to mention various aspects of eating disorders. The study allowed a discussion of ways in which popular magazine articles on eating disorders are inaccurate, and helped provide researchers with an understanding of how these conditions may be glamorized and/or perpetuated by the popular media. Suggestions are given as to how magazine coverage of eating disorders might be made more factual and helpful, and less glamorous.

References

American Psychiatric Association. (1987). *Diagnostic and statistical manual of mental disorders* (3rd ed., revision), Washington, DC: Author.

American Psychiatric Association. (2000). *Diagnostic and statistical manual of mental disorders* (4th ed., text revision), Washington, DC: Author.

Andersen, A.E. (2002). Eating disorders in males. In: Brownell, K.D. & Fairburn, C.G. (Eds.) *Eating disorders and obesity: A comprehensive handbook* (2nd Edition); pp. 188-191. New York: The Guilford Press.

Andersen, A.E., Bowers, W, & Evans, K. (1997). Inpatient treatment of anorexia nervosa. In: Garner, D.M. & Garfinkel, P.E. *Handbook of treatment for eating disorders* (2nd Edition); pp.327-348. New York, NY. The Gilford Press.

Anorexia Nervosa and Related Eating Disorders, Inc. (2002). Statistics: How many people have eating disorders? Retrieved July 14, 2004, from http://www.anred.com/stats.html.

Attie, I., Brooks-Gunn, J., & Petersen, A.C. (1990). A developmental perspective on eating disorders and eating problems. In M. Lewis & S.M. Miller (Eds.), *Handbook of Developmental Psychopathology*. New York: Plenum Press.

Bandura, A. (1977). *Social learning theory*. Englewood Cliffs, NJ: Prentice-Hall.

Bandura, A., & Walters, R.H. (1963). *Social learning and personality development.* New York: Holt, Rinehart & Winston.

Beaumont, P.J.V. (2002). Clinical presentation of anorexia nervosa and bulimia nervosa. In: Brownell, K.D. & Fairburn, C.G. (Eds.) *Eating disorders and*

obesity: A comprehensive handbook (2nd Edition); pp. 162-170. New York: The Guilford Press.

Becker, A. (1999). *Body, self and society: The view from Fiji*. Philadelphia: University of Pennsylvania Press.

Beumont, P.J., Beumont, C.C., Touyz, S.W., & Williams, H. (1997). Nutritional counseling and supervised exercise. In: Garner, D.M. & Garfinkel, P.E. *Handbook of treatment for eating disorders* (2nd Edition); pp.178-187. New York, NY. The Gilford Press.

Bishop, R. (2001). The pursuit of perfection: A narrative analysis of how women's magazines cover eating disorders. *The Howard Journal of Communications*, 12, 221-240.

Botta, R.A. (2003). For your health? The relationship between magazine reading and adolescents' body image and eating disturbances. *Sex Roles, 48*, (9-10), 389-399.

Braun, D. L., Sunday, S. R., Huang, A., & Halmi. K. A. (1999). More males seek treatment for eating disorders. *International Journal of Eating Disorders, 25* (4), 415– 424.

Carter, J.C., Stewart, D.A., Dunn, V.J. & Fairburn, C.G. (1997). Primary prevention of eating disorders: Might it do more harm than good? *International Journal of Eating Disorders*, 22, 167-172.

Chiodo, J. & Latimer, P.R. (1983). Vomiting as a learned weight-control technique in bulimia. *Journal of Behaviour Therapy and Experimental Psychiatry 14*, 2, 131-135.

Crow, S., Praus, B., & Thuras, P. (1999). Mortality from eating disorders: A 5- to 10- year record limiting study. *International Journal of Eating Disorders, 26,* 97-101.

Edwards-Hewitt, T. & Gray, J.J. (1993). The prevalence of disordered eating attitudes and behaviours in Black-American and White-American college women: Ethnic, regional, class, and media differences. *European Eating Disorder Review*, 1 (1), 41-54.

Evans, E.D., Rutberg, J., Sather, C., & Turner, C. (1991). Content analysis of contemporary teen magazines for adolescent females. *Youth & Society, 1,* 99-120.

Fairburn, C.G. (1985). Cgnitive-behavioural treatment for bulimia. In D.M. Garner & P.E. Garfinkel (Eds.*), Handbook of psychotherapy for anorexia nervosa and bulimia* (pp. 213-239). New York: Guilford Press.

Field, A.E., Camargo, C.A., Taylor, C.B., Berkey, C.S., & Colditz, G.A. (1999). Relation of peer and media influences to the development of purging behaviours among preadolescent and adolescent girls. *Archives of Pediatrics & Adolescent Medicine, 153* (11), 1184-1189.

Fredrickson, B.L. & Roberts, T.A. (1997). Objectification theory: Toward understanding women's lived experiences and mental health risks. *Psychology of Women Quarterly, 21,* 173-206.

Garner, D.M. Rockert, W., Olmsted, M.P., Johnson, C., and Coscina, D.V. (1985). Psychoeducational principles in the treatment of bulimia and anorexia

nervosa. In: *Handbook of Psychotherapy for Anorexia Nervosa and Bulimia* (Eds. D.M. Garner and P.E. Garfinkel). New York: Guilford Press.

Garner, D.M. & Garfinkel, P.E. (1997). *Handbook of treatment for eating disorders* (2nd Edition). New York, NY. The Gilford Press.

Garner, D.M., Garfinkel, P.E., Schwartz, D., & Thompson, M. (1980). Cultural expectations of thinness in women. *Psychological Reports, 47*, 483-491.

Garner, D.M., Olmsted, M., & Polivy, J. (1983). Development and validation of a multidimensional eating disorder inventory for anorexia nervosa and bulimia. *International Journal of Eating Disorders, 2*, 15-34.

Garner, D.M., Vitousek, K.M., & Pike, K.M. (1997). Cognitive-behavioural therapy for anorexia nervosa. In: Garner, D.M. & Garfinkel, P.E. *Handbook of treatment for eating disorders* (2nd Edition); pp.94-144. New York, NY. The Gilford Press.

Griffin, J. & Berry, E.M. (2003). A modern day holy anorexia? Religious language in advertising and anorexia nervosa in the West. *European Journal of Clinical Nutrition, 57* (1), 43-51.

Habermas, T. (1992). Possible effects of the popular and medical recognition of bulimia nervosa. *British Journal of Medical Psychology, 65*, 59-66.

Hall, A. (1985). Group psychotherapy for anorexia nervosa. In D.M. Garner & P.E. Garfinkel (Eds.), *Handbook of psychotherapy for anorexia nervosa and bulimia* (pp. 213-239). New York: Guilford Press.

Hardin, P. (2003). Shape-shifting discourses of anorexia nervosa: Reconstituting psychopathology. *Nursing Inquiry*, 10 (4), 209-217.

Harrison, K. (2000). The body electric: Thin-ideal media and eating disorders in adolescents. *Journal of Communication, 50,* 119-143.

Harrison, K. and Cantor, J. (1997). The relationship between media consumption and eating disorders. *Journal of Communication, 47* (1), 40-67.

Herzog, D.B., Keller, M.B., Storber, M., Yeh, C., & Pai, S.Y. (1992). The current status of treatment for anorexia nervosa and bulimia. *International Journal of Eating Disorders,* 12 (2), 215-220.

Hoek, H.W. (2002). Distribution of eating disorders. In: Brownell, K.D. & Fairburn, C.G. (Eds.) *Eating disorders and obesity: A comprehensive handbook* (2nd Edition); pp. 233-237. New York: The Guilford Press.

Hoek, H.W. & van Hoeken, D. (2003). Review of the prevalence and incidence of eating disorders. *International Journal of Eating Disorders, 34* (4), 383-396.

Hoskins, M.L. (2002). Girls' identity dilemmas: Spaces defined by definitions of worth. *Health Care for Women International, 23,* 321-247.

Kaplan, A.S. & Olmsted, M.P. (1997). Partial hospitalization. In: Garner, D.M. & Garfinkel, P.E. *Handbook of treatment for eating disorders* (2nd Edition); pp.354-360. New York, NY. The Gilford Press.

Keel, P.K. & Mitchell, J.E. (1997). Outcome in bulimia nervosa. *American Journal of Psychiatry, 154,* 313-321.

Kent, A., Lacey, H., & McClusky, J.E. (1992). Pre-menarchal bulimia nervosa. *Journal of Psychosomatic Research 36,* 3, 205-210.

Kotler, L.A., Boudreau, G.S., & Devlin, M.J. (2003). Emerging psychotherapies for eating disorders. *Journal of Psychiatric Practice, 9* (6), 431-441.

Krautter, T.H. & Lock, J. (2004). Treatment of adolescent anorexia nervosa using manualized family-based treatment. *Clinical Case Studies 3* (2), 107-123.

Larson, R., Kubey, R., & Colletti, J. (1989). Changing channels: Early adolescent media choices and shifting investments in family and friends. *Journal of Youth and Adolescence, 18*, 583-599.

Leichner, P., & Gertler, A. (1988). Prevalence and incidence studies of anorexia nervosa. In B.J. Blinder, B.F. Chaitlin & R. Goldstein (Eds.), *The Eating Disorders* (pp.131-149). PMA Publishing Corporation.

Leit, R.A., Pope, H.G., & Gray, J.J. (1999). Cultural expectations of muscularity in men: The evolution of Playgirl centerfolds. *International Journal of Eating Disorders, 29*, 90-93.

Leonard, D. & Mehler, P.S. (2001). Medical issues in the patient with anorexia nervosa. *Eating Behaviours, 2*, 293-305.

Low, K.G., Charanasomboon, S., Brown, C., Hiltunen, G., Long, K., Reinhalter, K., & Jones, H. (2003). Internalization of the thin ideal, weight and body image concerns. *Social Behaviour and Personality, 31* (1), 81-90.

Lucas, A.R., Beard, C.M., O'Fallon, W.M., & Kurland, L.T. (1991). 50-year trends in the incidence of anorexia nervosa in Rochester, Minn: A population-based study. *American Journal of Psychiatry 148*, 7, 917-922.

Mann, T., Nolen-Hocksema, S., Huang, K., Burgard, K., Wright, A., & Hanson, K. (1997). Are two interventions worse than none? Prevention of eating disorders in college females. *Health Psychology, 16* (3), 215-255.

Maxmen, J.S., & Ward, N.G. (1995). *Essential psychopathology and its treatment* (2nd ed.). New York: W. W. Norton & Company.

McKinley, N.M. & Hyde, J.S. (1996). The objectified body consciousness scale: Development and validation. *Psychology of Women Quarterly, 20*, 181-215.

Mitchell, J.E., Specker, S.M., & de Zwaan, M. (1991). Comorbidity and medical complications of bulimia nervosa. *Journal of Clinical Psychiatry, 52* (Suppl), 13-20.

Morry, M.M. & Staska, S.L. (2001). Magazine exposure: Internalization, self-objectification, eating attitudes, and body satisfaction in male and female university students. *Canadian Journal of Behavioural Science, 33*, 269-279.

Muehlenkamp, J.J. & Saris-Baglama, R.N. (2002). Self-objectification and its psychological outcomes for college women. *Psychology of Women Quarterly, 26*, 371-379.

Murray, B. (March, 2002). 'Partners in illness': Patients trading thinness tips. *Monitor on Psychology*, 42-43.

Neiderman, M. (2000). Prognosis and outcome. In Lask, B. & Bryant-Waugh, R. (Eds.), *Anorexia nervosa and related eating disorders in childhood and adolescence* (2nd Edition), p. 81-101. East Sussex, UK: Psychology press.

Neumaerker, K.J. (2002). Mortality rates and causes of death. *European Eating Disorders Review 8*, 191-187.

O'Dea, J.A. & Abraham, S. (2000). Improving the body image, eating attitudes, and behaviours of young male and female adolescents: A new educational

approach that focuses on self-esteem. *International Journal of Eating Disorders, 28*, 43-57.

Ohring, R., Graber, J.A. & Brooks-Gunn, J. (2002). Girl's recurrent and concurrent body dissatisfaction: Correlates and consequences over 8 years. *International Journal of Eating Disorders 31*, 4, 202-415.

Pike, K.M., Loeb, K. & Vitousek, K. (1996). Cognitive-behavioural therapy for anorexia nervosa and bulimia nervosa. In K. Thompson (Ed.), *Body image, eating disorders and obesity:* p. 253-302. Washington, DC: American Psychological Association Press.

Pinhas, L., Toner, B.B., Ali, A., Garfinkel, P.E., & Stuckless, N. (1999). The effects of the ideal of female beauty on mood and body satisfaction. *International Journal of Eating disorders, 25* (2), 223-226.

Piran, N. (2003). Prevention of eating disorders. In: Brownell, K.D. & Fairburn, C.G. (Eds.) *Eating disorders and obesity: A comprehensive handbook* (2nd Edition); pp. 367-371. New York: The Guilford Press.

Schulze, E.A. & Gray, J. J. (1990). The effects of popular and textbook presentations of bulimia nervosa on attitudes toward bulimia nervosa and individuals with bulimia nervosa. *British Review of Bulimia & Anorexia Nervosa, 4*, 83-91.

Silber, T.J. (1987). Acquired pseudo eating disorder: An imitation or fabrication of anorexia nervosa. *Journal of Adolescent Health Care, 85*, 452-455.

Slater, A. & Tiggemann, M. (2002). A test of objectification theory in adolescent girls. *Sex Roles, 46*, 343-349.

Stice, E. & Shaw, H. (2004). Eating disorder prevention programs: A meta-analytic review. *Psychological Bulletin, 130* (2), 206-227.

Striegel-Moore, R.H. & Cachelin, F.M. (1999). Body image concerns and disordered eating in adolescent girls: Risk and protective factors. In N.G. Johnson, M.C. Roberts, & J. Worell (Eds.). *Beyond appearance: A new look at adolescent girls* (p. 85-107). Washington, DC: American Psychological Association.

Sullivan, P.F. (2002). Course and outcome of anorexia nervosa and bulimia. In: Brownell, K.D. & Fairburn, C.G. (Eds.) *Eating disorders and obesity: A comprehensive handbook* (2nd Edition); pp. 226-230. New York: The Guilford Press.

Thomsen, S.R., McCoy, J.K, & Williams, M. (2001). Internalizing the impossible: Anorexic outpatients' experiences with women's beauty and fashion magazines. *Eating Disorders: The Journal of Treatment & Prevention, 9* (1), 49-64.

Thomsen, S.R., McCoy, J.K., Gustafson, R.L., & Williams, M. (2002). Motivations for reading beauty and fashion magazines and anorexic risk in college-age women. *Media Psychology, 4*, 113-135.

Thomsen, S.R., Weber, M.M., & Beth Brown, L. (2002). The relationship between reading beauty and fashion magazines and the use of pathogenic dieting methods among adolescent females. *Adolescence, 27*, 1-18.

Tiggeman, M. (2003). Media exposure, body dissatisfaction and disordered eating: Television and magazines are not the same! *European Eating Disorders Review*, 11, 418-430.

Turnbull S., Ward A., Treasure J., Jick H. and Derby L. (1996). The demand for eating disorder care: an epidemiological study using the General Practice Research Database. *British Journal of Psychiatry*, 169, 705-712.

Vaughan, K.K. & Fouts, G.T. (2003). Changes in television and magazine exposure and eating disorder symptomatology. *Sex Roles, 49* (7-8), 313-320.

Wade, T.D. & Lowes, J. (2002). Variables associated with disturbed eating habits and overvalued ideas about the personal implications of body shape and weight in a female adolescent population. *International Journal of Eating Disorders, 32* (1), 39-45.

Wade, T.D., Davidson, S., & O'Dea, J.A. (2003). A preliminary controlled evaluation of a school-based media literacy program and self-esteem program for reducing eating disorder risk factors. *International Journal of Eating Disorders, 33* (4), 371-383.

Williams, M.S., Thomsen, S.R., & McCoy, J.K. (2003). Looking for an accurate mirror: A model for the relationship between media use and anorexia. *Eating Behaviours*, 4, 127-134.

Wiseman, C.V., Gray, J.J., Mosimann, J.E., & Ahrens, A. II. (1990). Cultural expectations of thinness in women: An update. *International Journal of Eating Disorders, 1* (3), 57-69.

Woodside, D.B. (2002). Inpatient treatment and medical management of anorexia nervosa and bulimia nervosa. In: Brownell, K.D. & Fairburn, C.G. (Eds.) *Eating disorders and obesity: A comprehensive handbook* (2nd Edition); pp. 335-339. New York: The Guilford Press.

World Health Organization. (1995). Physical status: The use and interpretation of anthropometry. *WHO Technical Report Series.* Geneva, Switzerland: World Health Organization.

Appendix A

Reference List for Popular Magazine Articles

Balfour, V. (1999, May). A thin line. *Vogue*, 94-102.

Berestein, L. & Conchita Alonso, M. (2000, April 21). Coping: A conquering heroine High Noon's Maria Conchita Alonso waged a decade-long battle with bulimia. *People Weekly*, 69-72.

Carlin, P. & Nelson, M. (1998, April). The hunger: Marya Hornbacher's memoir of a withering eating disorder feeds her reputation but can't heal her soul. *People Weekly*, 121-122.

Chin, P. & Breu, G. (1999, July 8). Emotional rescue. *People Weekly*, 128-135.

Colino, S. (2000, October). Fear of fat. *Young & Modern*, 48-49.

Colino, S. & Koli, A. (2002, June). My mother gave me anorexia. *Cosmopolitan*, 192-195.

Dam, J.K.L. & Seaman, D. (2000, December 4). The naked truth: Photographer Ellen Fisher Turk helps women with eating disorders gain new insight into their problems. *People Weekly*, 105-106.

Duffy, T. (1999, April 12). Campus crusader: Dartmouth college nutritionist Marcia Herrin gives students food for thought. *People Weekly*, 71-72.

Editorial. (1999, February). Stop the anorexia obsession: The tabloid trend of diagnosing skinny celebrities as sick is hurting the disease's true victims. *Glamour*, 140.

Espinoza, G., Neill, M., Bane, V., Day, N., Driscoll, A., Harrington, M., et al. (2001, November 19). Jennifer Shortis: Treatment based on trust brings her back from the brink of suicide. *People Weekly*, 102-104.

Espinoza, G., Neill, M., Bane, V., Day, N., Driscoll, A., Harrington, M., et al. (2001, November 19). Jenny Lauren: Far from her glamorous roots, a famous fashion family's scion finds a place to heal. *People Weekly*, 105-106.

Espinoza, G., Neill, M., Bane, V., Day, N., Driscoll, A., Harrington, M., et al. (2001, November 19). Toni Tahoun: From glam 70's flight attendant to Las Vegas grandmother, she still fights the demon that killed her sister. *People Weekly*, 107-108.

Espinoza, G., Neill, M., Bane, V., Day, N., Driscoll, A., Harrington, M., et al. (2001, November 19). Amy, Douglas and Jennifer Battista: Three siblings tackle anorexia – with different results. *People Weekly*, 111-114.

France, D. (1999, August). Anorexics sentenced to death. *Glamour*, 213-215, 252.

Gotthelf, M. (2001, August). The new anorexia outrage. *Self*, 82-84.

Gottlieb, Lori. (2000, April). I wanted to be the thinnest girl on the planet. *Young & Modern*, 88-89.

Groskop, V. (2001, July). The fashion designers who cure anorexia. *Glamour*, 102-104.

Haber, D. (1999, February). A body to die for. *Self*, 128-131.

Hanauer, C. (2000, August). I want my daughter to love her body (because I didn't always love mine). *Self*, 88-89.

Hubbard, K. & Wohlfert, L. (1998, January 12). Slip of a girl: Princess Victoria, heir to Sweden's throne, falls victim to anorexia. *People Weekly*, 135-137.

Hubbard, K., O'Neill, A.M., Cheakalos, C., Baker, K., Berestein, L., Breu, G. et al. (1999, April 12). Out of control: Weight-obsessed, stressed-out coeds are increasingly falling prey to eating disorders. *People Weekly*, 52-59.

Hubbard, K. & O'Neill, A.M. (1999, December 31). Filled with hope: Four young women slowly turn the tide in their battle with eating disorders. *People Weekly*, 152-153.

Jarvis, L. (2002, February). Why being too thin is bad for your looks. *Glamour*, 44-46.

Jerome, R. (2000, October). Merrick Ryan: With so much to live for, she chose instead to die. *People Weekly*, 111.

Kennedy, J. (2002, December). My family forced me to eat. *Seventeen*, 104-105.

Lambert, P., Longley, J., & Paley, R. (2001, January 22). Not here, not now: Anxious about Keri Krissik's desperate struggle with anorexia, a Massachusetts college refuses to let her return. *People Weekly*, 69-71.

Mackeen, D. (2002, April). Waifs on the web. *Teen People*, 147-149.

Maran, M. (2001, November). Starving for love. *Mademoiselle*, 92-95.

McCafferty, M. (2000, June). Hollywood starve wars. *Glamour*, 277-279.

Miller, S., Ryan, T., Davis, C., Finan, E., & Fleeman, M. (2001, June 4). Battle ready: Pearl Harbor's Kate Beckinsale has conquered anorexia and other demons. Next quest: Hollywood. *People Weekly*, 71 – 72.

Moore, A. (2002, May). My own brother didn't recognize me. *Glamour*, 133-135.

Nissen, T. (2002, March). Suddenly stacked! *Glamour*, 130-246.

O'Neill, A.M., Matsumoto, N., McLintock, B., & Wescott, G.C. (1999, August 23). Clinical disorder: Anorexia guru Peggy Claude-Pierre is accused of mistreating her ailing patients. *People Weekly*, 147-150.

Otis, C. (2002, January). I was on a diet for 17 years. *Glamour*, 94-96.

Rosen, J. (2000, September). Who's that anorexic girl at the gym? *Mademoiselle*, 67-68.

Roth, D. (1999, November). A top model's battle with bulimia. *Glamour*, 215-217, 272.

Ruben-Erdely, S. (2002, October). Could you inherit an eating disorder? Inside one family's life-and-death struggle. *Glamour*, 302-305,322-323.

Sigler, J.L. (2000, October). Starving for control. *Seventeen*, 119-120, 212.

Sigler, J.L., Espinoza, G., Lynch, J., & Scott, S. (2002, May 27). Exercising control: Beating an eating disorder marked by excessive workouts teaches a Sopranos star to define beauty her own way. *People Weekly*, 69-70.

Tauber, M. & Nelson, M. (2000, September 25). The thin man - it's not just women: Dr. Thomas Holbrook, a recovering anorectic, helps other men face their eating disorders. *People Weekly*, 79-80.

Tresniowski, A. & Nelson, M. (2001, October 8). For the love of Anna: Their daughter lost her struggle against anorexia, but Kitty and Mark Westin fought a landmark battle against her insurer that could help save thousands like her. *People Weekly*, 114-117.

Tresniowski, A. & Seibel, D. (2000, September 18). Beating bulimia, swimmer Dara Torres unretires at 33 and hungers for gold. *People Weekly*